Klaus J. Aumayr

Successful Product Management

Tool Box for Professional Product Management and Product Marketing

Springer

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Springer Gabler

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Preface to the Fifth Edition

The fast-moving and highly competitive market for IT products and digital services has made a significant contribution to the development of agile methods. However, agility is not only required in the IT industry today. The enormous dynamics on the markets and the increasing competitive pressure are forcing companies from all industries to rethink and become more agile. Agile methods are often associated with the basic principles of the Scrum method. Iterative approach, team orientation and continuous market feedback are important factors. The role of the product owner in the Scrum team has also helped bring product management back into focus as an organizational principle. Agile product management is the new topic of the fifth edition. Based on the Scrum methodology, you receive a comprehensive overview of the core elements of agile product management, which you can use not only for product development, but also for many other fields of application (e.g. development of market launch concepts).

St. Gallen, Switzerland   Klaus J. Aumayr
January 2019

Preface to the First Edition

Do you work in product management yourself, would you like to enter this field or are you planning to set up a product management department in your company? Then you will find in this work manual the complete tools to successfully master these tasks. The information and topics presented on product management and product marketing come from practical experience - from my own professional practice in companies and as a management consultant as well as from the practice of the participants in my seminars. They provide you not only with the necessary concepts and models for implementation in your company, but also with the necessary methods, tools and instruments.

You will learn how to define strategic framework conditions for your professional product management and how to efficiently structure the areas of responsibility as a product manager. You will learn the crucial basics for systematic product marketing and how to plan target-oriented product strategies. Checklists and case studies facilitate the implementation in practice.

Of course, it would not make sense for you to try to apply everything presented in the book and implement it in your company. Instead, select the topics and content on product management and product marketing that fit your requirements and use them to develop a tailor-made concept for your own company. The book is intended to provide you with an overview and outline, and at the same time to provide you with a method and tool box that will help you to efficiently deal with and solve current issues and challenges in product management.

In the first part you will find a comprehensive compilation of all relevant aspects of **product management.** Product management in a company is too important to be left to self-organization. A clear positioning of product management in your company and a solid strategic responsibility are prerequisites for success in today's market and competitive situation. Not only you as a product manager, but also your company's top management should work together proactively on these issues in order to bring the competencies from product management to bear in the best possible way.

The second part is dedicated to **product marketing**. Here you will find structural models supplemented with helpful methods and tools to analyze your product market, develop a strategy for your product and plan the implementation in your company. You will find all

the essential information you need to put together a comprehensive business plan for your product market. The methods, tools and instruments used are comprehensively explained and easily adaptable for your own product.

In the third part, I paid special attention to **process-oriented product management and product marketing**. In addition to the organizational structure, the corresponding product-relevant processes and procedures must also be designed and anchored in product management. Regardless of whether it is a question of market launch processes or innovation processes, you as the product manager take on the process management and thus the process responsibility. The relevant processes must also be regularly checked for suitability and adapted if necessary. In addition to the presentation of the central processes and workflows, you will again find important tips for process design with the necessary tools and instruments.

This book is based on the practical experience of many professionals from a wide range of industries. In this context, I would like to thank all my loyal customers and business partners. It was their support that made it possible to write this book in the first place.

I wish you, dear readers, a stimulating read and much success in implementing it!

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About the Author

Klaus J. Aumayr born in 1958, is a trained engineer, business economist and graduate of the University of Toronto (Canada) and Johannes Kepler University (Austria). He began his career as a product manager, then moved into sales and key account management, and finally became managing director of a service company. Since 1995 he has been a founding partner of the management consultancy MSG - Management Systems St. Gallen. Through an early and clear focus in both consulting and training on the topics of product management and key account management, MSG achieved a high degree of recognition as a competence center for these topics in the German-speaking world. In the training area, Klaus J. Aumayr works together with renowned management institutes; in the consulting area, he supports customers in the introduction/optimization of product and key account management as well as in the development of product and customer strategies. If you would like to contact the author, please contact:Klaus J. Aumayrklaus.aumayr@msgag.com Further information about his fields of activity can also be found at: www.msgag.com.

Product Management: Positioning, Core Competencies and Organizational Integration

What distinguishes successful companies? Certainly the ability to develop products, successfully launch them on the market and optimally design the product life cycle. To build these capabilities, companies use many strategies, concepts and programs. But all these approaches remain largely ineffective if solid organizational conditions are not created.

One of these organizational structures that has prevailed to this day is product management. In the many years of its existence, product management has constantly adapted to the new market and competitive conditions. Changes in the companies have intensified this dynamic. Today, product management is still a central topic for almost all companies.

In this part you will learn,

- how product management came into being.
- how product managers manage interfaces and delegate tasks.
- how product management can position itself within the company.
- what job descriptions and requirement profiles of product managers look like.
- how different process levels influence your work.
- what to look out for when introducing product management in your company.
- which organizational forms are possible for the product management department.
- the importance and impact of strategic responsibility for you as a product manager.
- where product management is heading and what consequences this has for your position as a product manager.

1   A Brief Introduction to Product Management

The concept of product management was developed at Procter & Gamble (USA) in 1927. A new skincare range with the brand name "Camay" was unable to establish itself on the market and largely failed to meet revenue expectations and market share targets. Problems in the market were exacerbated by internal conflicts and could not be overcome from the perspective of the individual functional areas of the company. Different priorities and functional optimization approaches ("silo thinking") prevented a satisfactory overall solution. To clarify and solve the problems that arose, a young manager (Neil H. McElroy, later CEO of the company) was assigned to the product group with the task of coordinating all external and internal product-related activities and matters (operational and strategic). This approach quickly led to the desired success, and the company decided to introduce this approach company-wide. For this purpose, the products were divided into product groups (including individual products) and product managers were assigned accordingly.

Product management was established and became widespread throughout the consumer goods industry in the following years. Other industries also adopted this approach, so that today product management is a widespread management concept and is used as the dominant organizational form in various companies. In recent years, smaller and medium-sized companies have also begun to explore the use of product management, and it is becoming increasingly popular there (despite resource constraints). The basic principle of product management is that a product manager is assigned to individual products or product groups with the task of coordinating and controlling all product-related topics across functions. This creates a matrix organization within the company (see Fig. 1).
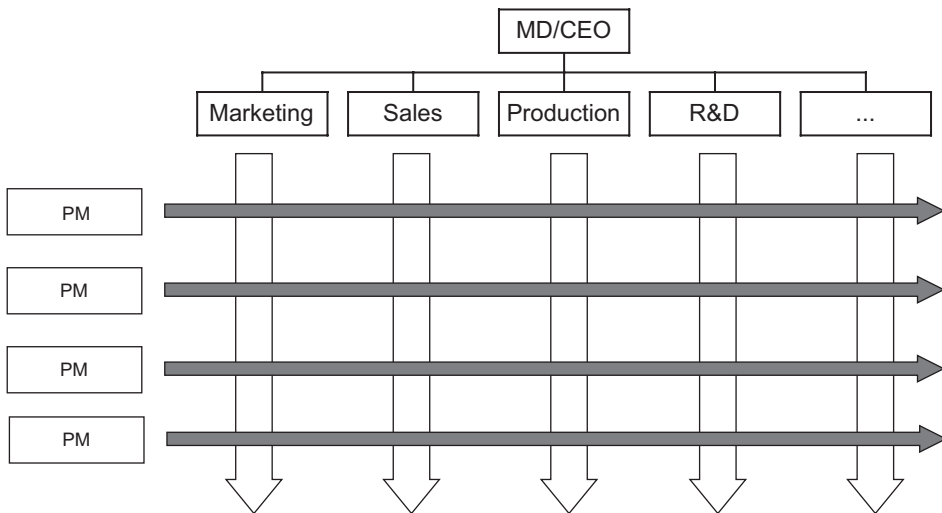
Fig. 1   Product management and matrix organization (basic principle)

Product management is in this regard not a substitute for functional management (e.g. marketing, R&D, sales, etc.), but an additional management level that is used in the company. The link between functional management and product management is established via the matrix organization.

2 Not a Clear-Cut Matter: How Functional and Product Management Differ from Each Other

In order to ensure the functioning of this system in your company as well, a clear assignment of interfaces and demarcations between product management and functional management is required. You can make the necessary delimitation for this according to the principle of core competencies.

The functional manager is:

- Functional specialist
- Product generalist
- Resource manager

The product manager is:

- Product market specialist
- Functional generalist
- Product market manager

This distinction is explained in detail below, as it is of particular importance for successful product management, also in your company.

2.1 The Functional Manager

The functional manager is a functional specialist and thus possesses comprehensive specialist knowledge in his field and area of responsibility. This specialist knowledge is to be illustrated using the example of two functional areas (sales and development). It should be noted, of course, that the listing of the areas of competence in both examples is only a small excerpt.

The sales department is a specialist (professional)

- in negotiations with the customer
- in customer relationship management
- in negotiations on prices, terms and conditions
- in contacting customers

- in route planning and route optimization
- in customer selection and customer prioritization
- in the analysis of the decision-making structures at customers
- in the development of a customer strategy
- in the management of purchasing processes with customers
- in the development of personal networks

The development (R&D) department is specialist (professional)

- in the evaluation and selection of technologies
- in the project management of product development projects
- in the selection of suitable materials
- for the reverse engineering of competitor products
- in the selection of suitable components and assemblies
- in the development of product specifications
- in the estimation of development times and costs
- in the selection and use of development tools
- in the design and optimization of development processes
- in the preparation and implementation of preliminary studies

Resources and budgets are also allocated in the functional areas (e.g. sales employees, sales tools and sales budgets). Allocating the functional budgets to the individual products and product groups is a particular challenge for product management in the annual budgeting processes. Here, the different priorities of the functional and product areas become particularly apparent.

However, functional areas should also be product generalists. Fundamental knowledge in the functional areas about the company's products is necessary and must be ensured by you as product manager. This aspect, which is also called "internal marketing" in some companies, is one of the important tasks of a product manager. The topics that this product generalist knowledge can include are listed below as examples.

Product generalist knowledge may include:

- Knowledge of the structure of the entire product range
- Clarity about the company's internal product priorities
- Knowledge of the key USPs of the most important products/product groups
- Clarity about product strategies and product focus
- Overview of priority measures in product marketing
- Knowledge of revenue and contribution margin situation of the most important products
- Knowledge about market share and market position of the products
- Overview about important competitors and competitive products
- Knowledge of central product innovations
- Knowledge of product modifications and relaunches.

2.2   The Product Manager

As a product manager, you are a product market specialist and thus possess comprehensive specialist knowledge about the product market. In recent years, the focus has shifted from the product to the market, so that your role in product management today can rather be seen as that of a market specialist for the product. The following overview shows in detail what this market specialization can look like.

As a product market specialist you know

- the product market in detail.
- the current customer needs, problems and purchasing criteria.
- the key future market developments and trends.
- the future relevant customer needs, problems and purchasing criteria.
- the competitor products (at least of the main competitors!).
- the advantages and disadvantages of the products in a competitive comparison.
- the key opportunities and threats in the product market.
- the buying processes and buying process phases at the customer.
- the instruments used to control the purchasing process.
- the product-related marketing mix of the competitors.
- the product-related marketing strategies of competitors.

In order to be able to coordinate and control the product-related activities across functions, you must also have sufficient generalist knowledge from the functional areas. It is therefore advisable to train a product manager in the most important functions before deploying him or her as a generalist. Job rotation programs and seminars are suitable for this purpose. Job rotation programs are particularly well suited for this purpose because the product manager not only receives functional input, but can also build a network of relationships with the functional areas and learn about the company-specific characteristics of the functional areas (processes, procedures, tools, etc.). Building and maintaining relationship networks are particularly important for you as a product manager because you do not have hierarchical access to the functional areas and therefore depend on personal contacts and relationships, especially in planning and implementation.

> **Therefore an important tip**
> Consistently develop your contacts and relationships in all important areas and hierarchical levels in the company. Cultivate especially the contact to leadership and management levels!

	Focus of the functional areas	**Focus of the product manager**
Sales	• Short-term orientation • Incoming orders • Sales promotion	• Long-term, strategic orientation • Optimization of sales and contribution margin • Market position of the product
Production	• Long production lead times • No model changes • Small product range	• Short production lead times • Frequent model changes • Extensive product range
Research and development	• Technical capabilities • Product features • Optimal product for introduction	• Market requirements • Orientation to customer benefit • Time to market
Finance and accounting	• Liquidity • Cost recovery, price surcharge	• Investment in the market • Competitive pricing strategies

Fig. 2 Conflict potential between product and functional management

2.3   Potential for Conflict Between Product and Functional Management

Of course, there is a pronounced potential for conflict between the functional areas and product management. In your daily practice, you experience this directly. The functional areas focus on their own function and try to optimize it. As a product manager, you take the product perspective and try to do everything possible to improve the performance of the product or product group. With these different interests, there is bound to be friction. Figure 2 shows some examples of this.

Due to the cross-functional approach of the product manager, these conflict potentials become clearly apparent.

2.4   Definition of product management

Based on the previous descriptions, product management can be defined as follows:

> **Product management**
>   is a management concept that focuses on the need for cross-functional and cross-divisional control and coordination of products or product groups. While maintaining the existing vertical structure (functional structure), product management has the task of ensuring a horizontal structure (product-related structure). This results in a matrix organization in the company, which is formed by functions/divisions and products/product groups. In addition to the functional alignment of the functional areas, product management must ensure the product-related alignment. This means that product management controls and coordinates all product-related issues (from procurement to marketing and sales) for the assigned products/product groups. As a product market specialist and functional generalist, product management is thus a kind of information, coordination and control platform for all product-relevant topics within and outside the company.
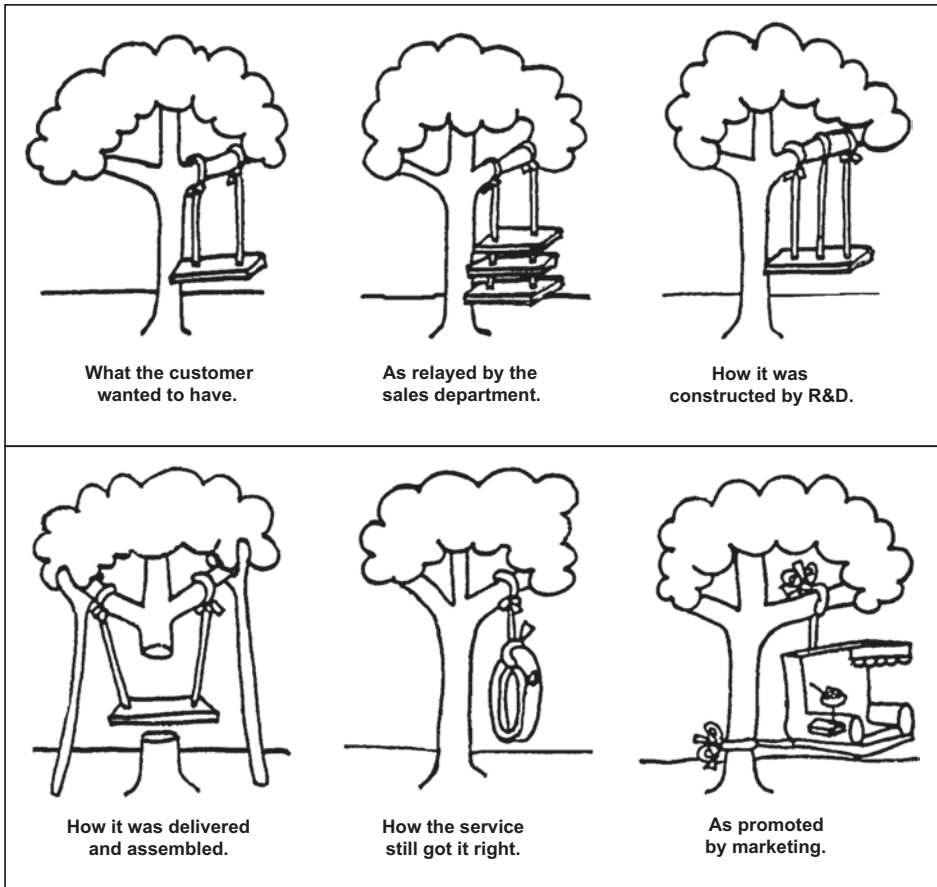
Fig. 3 Coordination function of the product manager

In short, as a product manager, you have to make sure that what is shown in Fig. 3[1] does not happen in your company.

3   Setting Boundaries: How Product Managers Manage Interfaces and Delegate Tasks

A central challenge is the problem of delegating tasks to the product manager by the functional areas. As already shown, the specialist knowledge should be anchored in the functional areas. In many cases, however, tasks that should actually be performed by the

[1] Despite intensive research, I have not been able to locate the source of this illustration. Should you know the illustrator, please let me know.

specialists in the functional areas are delegated to product management. This leads you to being confronted with tasks for which you

- do not have specialist knowledge.
- have no resources.
- were not hired.
- will not be paid.

Shifting functional tasks to product management leads to an overload of the product manager – one reason for the relatively short lengths of stay of product managers in this role. Figure 4 shows the basic principle of task delegation to the product manager.

  This fundamental problem arises in many companies and represents one of the main causes of poorly functioning product management. Practical experience shows that tasks from almost all functional areas can be found in product management. An explorative survey conducted by MSG Management Systems St. Gallen among companies in German-speaking countries shows the frequency of delegation of different functional tasks to product management (see Fig. 5).

  Tasks from the functional areas of marketing, sales and development are those that are most frequently performed in product management. The reasons why these tasks end up in product management will be discussed in detail below.

  The following case shows how such a delegation of tasks looks in practice.

Example: Delegation of tasks to the product manager
  The product manager of an industrial automation company needed a supplier part for the modification of one product (control unit). By integrating this part, the functional scope of
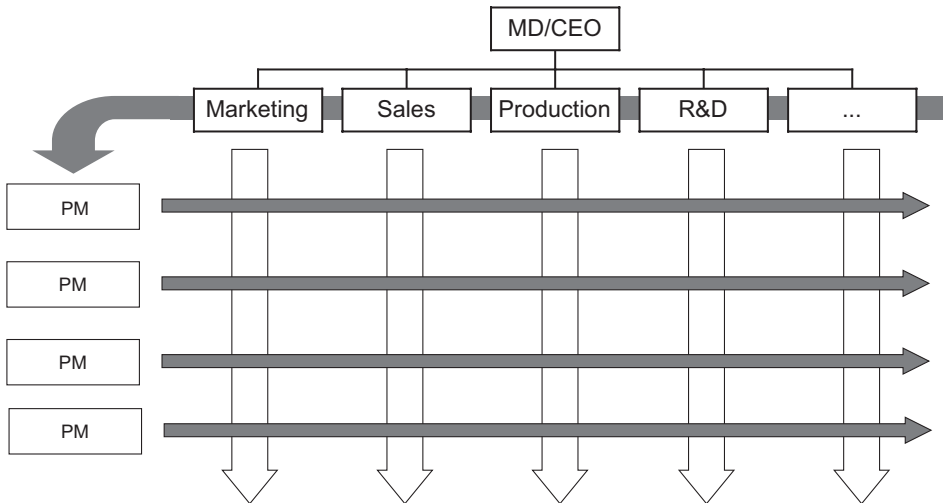
Fig. 4 Delegation of tasks to product management
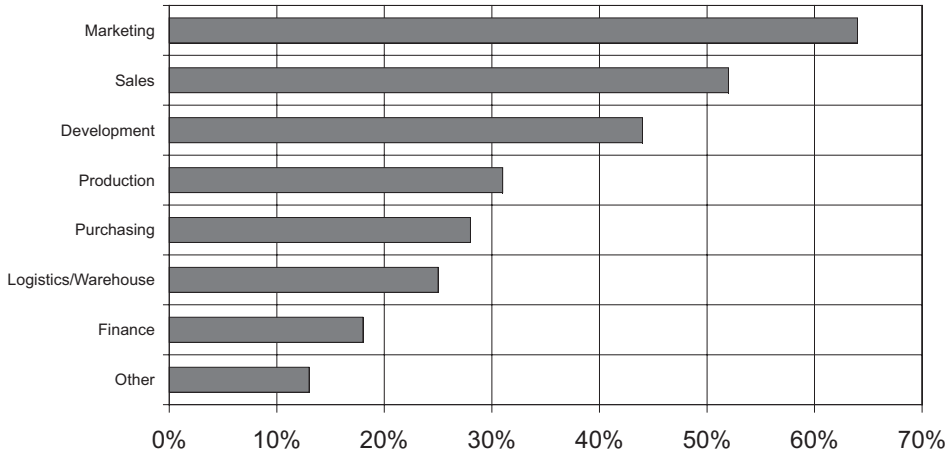
Fig. 5   Frequency of delegated tasks to product management

> this product was to be expanded according to market and customer requirements. The product managers contact with the purchasing department was unsatisfactory. The purchasing departments opinion was, that the product manageris responsible for the success of the products, therefore the product manager should also take care of the purchase of this part. The product manager then handled the entire procurement process-from supplier search to supplier selection. The purchasing department issued the order form!

If you as a product manager get into such a situation, you have to be very careful. If such processes become ingrained in the company, a return is very difficult and time-consuming. The argument "We've always done it this way, why should we change it now?" is not uncommon.

3.1   Clarification of Interfaces

As a product manager, you should vehemently prevent attempts by functional areas to delegate tasks to the product manager! Should you nevertheless find yourself with tasks that are not to be assigned to product management, the following procedure has proven to be expedient:

Step 1: Identify Your Current Activities with Time Expenditure
Using time sheets, diaries, project plans, etc., you can identify the activities you have carried out as a product manager (e.g. in the last six months). Create a list of your activities and tasks and allocate the time budget of 100% to these activities and tasks. The result can be displayed graphically and gives a quick overview of the situation. Figure 6 shows an example of a task analysis of a product manager from a company in the construction supply industry.

Activities		Time required (in %)				
		0	10	20	30	40
1. Quotation creation	ACTUAL					
	TARGET					
2. Handling orders	ACTUAL					
	TARGET					
3. Technical information	ACTUAL					
	TARGET					
4. Material orders	ACTUAL					
	TARGET					
5. Stock optimization	ACTUAL					
	TARGET					
6. Invoice control	ACTUAL					
	TARGET					
7. Product marketing	ACTUAL					
	TARGET					
8. Product optimization	ACTUAL					
	TARGET					

Fig. 6 Task analysis in product management (excerpt)

In this case, the product manager has only about 30% of his time available for product optimization (e.g. product relaunch) and product marketing. Clearly too little for the specific market and competitive situation of this company. A competitor regularly manages to be on the market significantly earlier for product relaunches and new product launches. A comparison of the product marketing is also in favor of the competitor.

Step 2: Identify Critical Activities with Targets
In the next step, you should determine the critical activities that definitely do not belong to your tasks as a product manager and have arisen through delegation from the functional areas. This result should also be represented graphically.

Figure 7 shows an example of a task analysis with determination of the critical activities with target setting of a product manager from a company in the construction supply industry. The critical activities and tasks are marked with a lightning symbol in this example.

Step 3: Delegate Back the Critical Activities
Discuss the tasks identified as critical in individual discussions and team meetings (possibly with coaching support) with the functional areas concerned. Based on this, the processes and task delimitations can be redesigned and the implementation prepared. The new arrangements should be assessed and reviewed in a follow-up meeting after three months. A regular review (quarterly or half-yearly) is sensible and recommended in any case.

In the case described above, the following priority measures were developed and implemented over a period of two years:

Activities		Time required (in %)				
		0	10	20	30	40
1. Quotation creation	ACTUAL					
	TARGET					
2. Handling orders	ACTUAL					
	TARGET					
3. Technical information	ACTUAL					
	TARGET					
4. Material orders	ACTUAL					
	TARGET					
5. Stock optimization	ACTUAL					
	TARGET					
6. Invoice control	ACTUAL					
	TARGET					
7. Product marketing	ACTUAL					
	TARGET					
8. Product optimization	ACTUAL					
	TARGET					

Fig. 7 Task analysis, critical activities and target setting (extract)

Quotation Creation The creation of standard quotations has been completely handed over to sales. Special offers are created by sales (according to corresponding specifications by the product manager) and released by product management.

Result: The time previously used was reduced by 50%.

Handling Orders Standard orders are processed entirely by the sales staff. Special orders and orders from defined key accounts (key customers) are checked and released by product management.

Result: The time previously used was reduced by 50%.

Technical Information A separate position for managing "technical information" was created, which could partly handle the customer's technical inquiries. As the company changed strategy (from product sales to system sales), only a small part of the tasks could be diverted from product management.

Result: The time previously used was reduced by a third.

Material Orders All material orders could be delegated back to the warehouse and logistics department. In addition, some improvements were made to the company's warehouse management, especially the IT-supported warehouse management systems were adapted.

Result: The previous time expenditure could be completely eliminated.

Warehouse Optimization The changeover from product sales to system sales also resulted in a restructuring of the warehouse management. This resulted in product management retaining a relatively high proportion of tasks due to the complexity of the systems.

Result: The time previously used was reduced by 50%.

Invoice Control The tasks related to accounting control were completely taken over by the finance and accounting department. This was also the functional area in which the repatriation of tasks was easiest to carry out.

Result: The previous time expenditure could be completely eliminated.

Product Marketing By streamlining tasks between product management and the functional areas, it was possible to more than triple the time budget available for product marketing tasks. As a result, the company was able to achieve some considerable successes over the competition in some product/system areas.

Product Optimization Product optimization, which had previously been somewhat neglected, was improved. A long-overdue product program streamlining was carried out, and some products were better positioned on the market by means of a relaunch. The systems business was tackled proactively in line with the company's new strategy.

Of course, it is nonsensical to assume that all operative tasks can be removed from product management. The product manager must monitor the product-related tasks in the functional departments and thus ensure that deadlines, budgets, milestones, etc. are met and, if necessary (e.g., in the case of bottlenecks), also temporarily take over partial tasks. The key here is to find the right balance. If this leaves too little time for product management, this can be seen immediately in the results.

3.2   Reasons for Delegating Tasks

There are many reasons why such task delegation to product management occurs. The most common reasons for task delegation are:

- Functional areas delegate "on purpose".
- There is a lack of clarity about the tasks and responsibilities of a product manager.
- The product manager cannot "let go" of former functional tasks.
- Functional areas lack expertise/resources.

As can already be seen, the causes lie partly in product management itself, partly in the company's own functional areas and in the companies top-management. Let us briefly address the individual causes here:

The Functional Areas Delegate "on purpose"

Professional "task delegators" can be found in many areas. You will also find them in your company. Functional tasks are delegated to product management for a variety of reasons. The most common reasons for delegating tasks to product management include:

- Time saving
- Acquisition of additional resources
- Avoidance of unpleasant tasks
- Resource bottlenecks in the functions
- Avoidance/deferral of responsibility

The following practical example illustrates this procedure.

> **Example: Delegation of tasks by sales representatives**
>
> A sales representative of a financial services company calls the company's product manager at the beginning of the week. The sales representative has an important customer appointment on Friday that several people at the customer are scheduled to attend. The product manager seems to be the only suitable additional person who can attend this appointment together with sales. The product manager confirms the appointment and enters it in his diary. On Wednesday, the sales representative calls the product manager again to inform him that there is another important customer to be dealt with, unfortunately he has only been able to arrange this new customer appointment at the same time as the already scheduled appointment on Friday. The product manager is asked to make the first appointment alone.

This tactic, which was widely used in this company, allowed the sales representatives to expand their capacity and integrate product managers more and more into sales activities. With serious consequences for the company. Product development and product modification fell by the wayside and the company lost market share relative to the competition in some product areas. It was later found that a product manager even misused up to 60% of his capacity by performing sales tasks.

Of course, your job as a product manager is to support sales. However, this does not mean that you immediately take over the tasks of the sales department. However, among other things, you ensure that

- the sales department receives product-related training.
- a product presentation (master presentation) is available.
- reference documents (reference lists, customer case studies) are ready for use.
- a sales manual (product comparisons and arguments) is created.
- a list of frequently asked questions (with answers) is available.
- a product brochure or a product folder is created.
- a product video is ready for use.
- a technical documentation is available.
- an instruction manual is available for the user.
- special product documentation (e.g. application instructions) is available.
- all sales documents are available in a structured form.

The product managers from a company in the automotive supply industry provide the sales department, in addition to other support tools, with a comprehensive sales manual (including training) with the following contents:

Example: Contents of a sales manual

- Product description (incl. product service)
- Technical product data and technology used
- Scope of functions and services of the product
- Market situation (market, segments, customers)
- Target segments, target customers and sales targets
- Applications and target applications
- Competitor products (advantages/disadvantages)
- Price-performance positioning
- Prices, pricing strategy and terms/conditions
- Sales arguments, objection handling and USPs
- Frequently asked questions with answers
- Sales process and tools
- Marketing and communication strategy
- References, test reports, press releases …

However, a joint customer visit with the sales department may be necessary in individual cases (e.g. for strategically important key customers).

However, customer contacts for obtaining market and competitor information are important in order to fulfill your role as a product market expert. Especially to special customers and customer groups (innovators) the product manager should build up contacts in order to obtain this information by means of expert interviews, innovation workshops, application observation, etc. However, product sales is definitely not the main focus during such activities.

There Is a Lack of Clarity About the Tasks of a Product Manager

Which tasks a product manager is supposed to perform in the company and what he has to take care of is largely unclear in many companies. Product managers are hired, but a clear positioning and an associated assignment of tasks (which also makes sense!) are rarely made. This situation will be illustrated by an example.

Example: Lack of clarity of tasks on the part of management
The CEO of a company in the IT industry, when asked how product management was positioned in his company, responded with the following answer: "Our product managers are chief cooks and bottle washers." He also demanded that his product managers be with customers 80% of their time selling. When asked what his sales force was doing, he then replied:"Our sales managers are doing the same."

This situation probably also contributed somewhat to the fact that this company disappeared from the scene in recent years. The product manager who does all the strategic

work (as "chef") and then can also take over the operational implementation himself (as "dishwasher") has yet to be born.

This, by the way, is an illusion that many companies succumb to. The frustration on both sides usually leads to the complete abolition of product management. The following list shows some examples of tasks and activities that definitely do not belong to product management.

The following activities are not part of product management:

- Complaint handling
- Invoice control
- Technical application advice at the customer
- Project management for development projects
- Sales activities
- Implementation of sales promotions
- Quotation
- New customer acquisition
- Order processing
- Inventory control
- and much more

If such activities are demanded of you on a large scale, this is a clear indication that the principle of product management is not yet understood or clearly anchored in your company.

A company from the automotive supply industry shows a different conception of the topic of product management. Here, product management is already seen in an entrepreneurial role.

> **Example: Product management from the point of view of the management of a company (shortened statement)**
> "Our product managers bear full responsibility for their products. This includes not only revenue and contribution margin, but also market share and market position. The product manager is the right hand of the management. He is an entrepreneur in the company and specializes in a product or product group."

The Product Manager Cannot "let go" of Former Functional Tasks

Another common phenomenon is that product managers cannot tear themselves away from their former positions in the functional areas. These product managers are specialists in the respective functional area. The new position as product manager, however, requires that he now no longer performs these tasks himself, but that they are implemented in the functional area. The product manager must prepare an appropriate "briefing" for the execution of the task for the functional area concerned, monitor and control the implementation of the measures in the functional areas and release the results achieved. This procedure is to be understood as shown in Fig. 8.

Fig. 8 Briefing by the
product manager
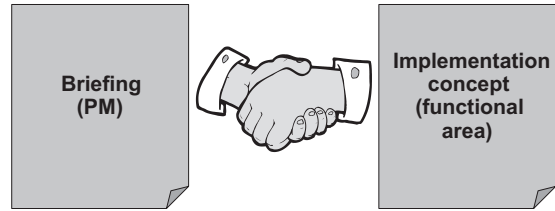
Product managers from a consumer goods company use the following briefing content for briefing an advertising agency or their own communications department.

Example: Briefing contents for advertising agency/marketing communication

- Brief description of the product
- Communication and communication measures

– What communication measures are planned?
– What measures have already been implemented?
– Which topics/contents should be communicated?
– Are there any other points that should be considered?
– Are there already existing images, texts, slogans etc.?

- Description product/service

– What are the benefits of the product?
– For what reason was the product developed?
– What are the advantages and disadvantages of the product compared to the competition?
– What are the three most important unique selling points (USPs)?
– Where is the competitive differentiation (product, service …)?
– Is the product a real innovation?

- Description of the target market

– Local, national, international market?
– Which market segments/customer groups exist in the target market?
– How do the market segments/customer groups differ?
– How big is the market and how is it developing?
– What competitors are there in the target market?
– What are the communication priorities of the competition?

- Description of the target group

– Who is involved in the purchase decision process and how?
– What does the purchase decision process look like?
– What is the buying behavior in the product market?
– Where and how do customers inform themselves about the product?

- Price and pricing strategy

– What is the product price or the price of the competing products?
– What is the pricing strategy and how is the product positioned (price-performance)?
– What pricing models (e.g. discount systems) are there?

    – Do the price differences correspond to the performance differences?
- Sales and marketing

    – How is the product sold (benefit vs. price)?
    – Which distribution/sales channels are used?
    – Which sales and marketing measures are used?
    – What other framework conditions need to be taken into account?
- Budget situation

    – What is the communications budget?
    – What does the budget include and how was it determined?
    – Is the budget project-based or period-based (e.g. annual budget)?
- Communication task of the agency/communication department

    – What are the communication goals in detail (e.g. product awareness)?
    – What exactly is the agency/communications department supposed to do?
    – What specific creative task is expected?
    – Which media mix should be used?
    – What are the design specifications (e.g. corporate design)?
    – What is the timetable and schedule?

The functional areas (marketing, sales, development, etc.) create an implementation concept based on the product manager's briefing. In addition to the content-related topics, this implementation concept also contains the necessary budget. It makes sense to coordinate the implementation concept (including budget) with product management and release it for implementation by the functional areas. The implementation results are compared with the briefing contents. Using the example of a product development, the procedure is shown in Fig. 9.

As the product manager, you create the market specification (briefing) for the new product to be developed. According to standards and norms, the market specification contains the entirety of the demands of the product market on the product. In general, it describes the immediate objectives, tasks, functions, performance expectations and requirements of the market as well as other key data for the desired product. The contents of the market specification should be quantifiable and verifiable. This makes it easier for you to carry out product tests later on. In addition, the market situation, the internal company conditions (e.g. processes, systems, procedures …), time factors and the anticipated costs and prices are also presented. The market specification is primarily a description of

Fig. 9 Specifications in the context of product development
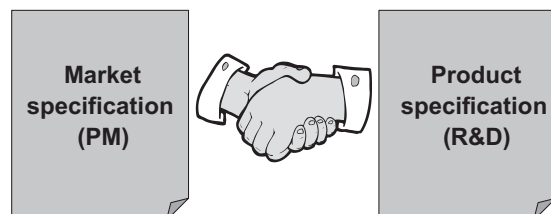
the problems, requirements and the goal. It does not include a technical solution to the problem or specific steps to solve the problem or achieve the goals. It describes the WHAT and not the HOW.

The market specification
   is a description of the requirements and the goal!

The following example shows the contents of a market specification from an environmental engineering company.

Example: Contents of a market specification

- Product description and project structure
- Competitor information (product comparison, prices …)
- Market data (market volume, market share …)
- Market and customer segments
- Applications and fields of use
- Market requirements and development goals

  – Operating conditions and environmental requirements
  – Main requirements (hardware, software, service …)
  – Options and additional requirements
  – Interface requirements
  – Lifetime requirements (life cycle and roadmap)
  – Security requirements
  – Standards, patents, guidelines, test methods

- Profitability from the market and customer perspective
- Economic efficiency from the manufacturer's point of view

  – Price and cost targets
  – Sales targets and break-even point calculation
  – Investment targets and return on investment (ROI)
  – Product contribution margin, profitability calculation …
  – Development project costs

- Know-how requirements
- Schedule and timetable (including launch date)

The following example shows the contents of a market specification from an IT company.

Example: Contents of a market specification

- Product drivers

  – Purpose of the project
  – Client, customer and other stakeholders
  – Users of the product

- Product/project constraints

  – Mandated constraints
  – Naming conventions and definitions

- – Relevant facts and assumptions
- • Functional requirements

- – The scope of the work
- – The scope of the product
- – Data requirements
- • Non-functional requirements

- – Look and feel requirements
- – Usability and humanity requirements
- – Performance requirements
- – Operational requirements
- – Maintainability and support requirements
- – Security requirements
- – Cultural and political requirements
- – Legal requirements
- • Product/project issues

- – Open issues
- – Off-the-shelf solutions
- – New problems
- – Tasks
- – Cutover
- – Risks
- – Costs
- – User documentation and training
- – Waiting room
- – Ideas for solutions

A market specification should be available in a standardized form. A clear numbering of the requirements makes it easier for you to refer to the specification item later. To make the market specification clear, it is written in short text and supplemented with tables, graphics or drawings. Since it is often the case that not all requirements can be implemented in a product or that various requirements can be contradictory, it makes sense to subdivide the compiled requirements into mandatory and desirable requirements (prioritization). In addition, you should concretize the requirements with quantitative specifications.

Some preparatory work is necessary for the creation of market specifications. Detailed knowledge of the product market is crucial here. This is where you can make full use of your competence as a product market expert.

A company in the medical technology sector has developed a four-stage process for this, which the product manager goes through together with the product team.

Example: Process steps for the development of market specifications

- **Process step 1: Market analysis**
  This process step involves a thorough analysis of market requirements. Competitor products are examined, complaint statistics are evaluated, application observations are carried out

at customers, product innovation workshops are held with users and customer problem analysis are carried out.

- **Process step 2: Collection and preparation of requirements**

Here, a systematic and structured compilation of market and customer requirements takes place. The requirements are grouped, summarized and formulated according to existing classification criteria.

- **Process step 3: Prioritization**

During prioritization, attention is paid to whether requirements influence each other or even conflict with each other. The product team uses the quality function deployment (QFD) methodology here. Subsequently, the requirements are differentiated into mandatory and desirable requirements. A particularly important point in this process step is the quantification of the requirements!

- **Process step 4: Creation of market specification**

In addition to the market requirements, further information is collected and processed in this step (e.g. market and competitive situation, financial and economic aspects, time and deadline situation, etc.). The market specification is completed and can then be discussed with the management.

Based on the requirements from your market specification, the development department (R&D) creates a product specification. In the product specification, the product concept is technically described down to the level of the assemblies and individual parts (e.g. dimensions, weight, functionality, design, quality …). The statements about the sales targets are supplemented by concrete cost and profitability calculations. The production concept is defined, e.g., with regard to the plant technology, the use of machines and the suppliers. The specifications contain concrete, detailed contents and procedures for solving problems and achieving goals.

The product specification
describes the technical problem solution and the achievement of the goals!

The following example shows the contents of a product specification from an industrial automation company.

Example: Contents of a product specification (excerpt)

- Requirements for function and structure
- Product functions and features
- Technology used
- Specification of technical data
- Detailed performance data (dimensions, design …)
- Hardware and software
- Tolerance ranges for production and quality assurance
- Requirements for components, assemblies and individual parts
- Determination of development tools
- Determination of costs according to the sales estimate
- Determination of the development budget

- Examination of the technical feasibility
- Determination of the necessary capacities
- Implementation steps, sub-activities and time targets
- Determination of standards and test specifications
- etc.

The reconciliation of the market specification with the product specification by product management together with R&D is critical. Development begins, on the basis of the product specification, which usually ends in a prototype, as an intermediate stage. You compare this prototype with the market specification and, if everything is fulfilled, release it for series production/pre-series production.

Errors in the market specification inevitably have an impact on product success, as the following case from the consumer goods industry shows.

Example: Consequences of faulty specifications

A product manager of a company from the consumer goods industry was responsible for the development of a new ice cream. In addition to the actual product development, which in this case was rather simple, packaging also had to be developed that would meet both logistical and marketing requirements. A market specification for the packaging was developed. An external service provider as packaging specialist developed a "market specification" for the packaging and created the prototype. The prototype was insufficiently tested due to time constraints. The product was introduced to the market and achieved good sales in the first few weeks. After that it only went downhill. The reason was quickly found through a customer survey. The packaging did not fit into the standard freezer compartment of a refrigerator. The fault was in the market specification. This specific requirement was missing!

Of course, the creation of the market specification is associated with effort on your side. The subsequent coordination processes with the functional areas or even with external institutes and service providers are also time-consuming and resource-intensive. Some product managers now start to carry out these activities themselves again, possibly because they have the corresponding expertise from previous positions. With negative consequences, as the following example shows.

Example: Not being able to let go of former functional tasks

A product manager at a company in the packaging industry was recently "promoted" to product manager. His former area of responsibility was in the company's R&D department. There he dedicated himself to new packaging technologies in recent years. As a product manager, he now found himself in the situation of developing and marketing a new product for the establishment of a new business division. After the corresponding market analysis, a market specification document was drawn up. The briefing of the R&D department for the creation of a product specification was unsatisfactory, so that the product manager decided to carry out the development of the product himself. Due to the neglected strategic positioning and marketing of the product, the market launch of the product was a flop.

The functional areas of the company represent important resources and competencies for you as a product manager. Not using these resources usually means having to invest your

own time in them. In doing so, you run the risk of not being able to perform important tasks in product management, or only being able to perform them inadequately.

Functional Areas Lack Expertise/Resources

There is a bigger problem for you if the functional areas of your company cannot provide the necessary expertise or resources.

> **Example: Lack of expertise in the functional departments**
>
> A company from the fastening technology sector built up a new business division. In this new business area, new products of the connectivity technology as well as new technologies were used. The products were developed and in parallel the market launch was prepared. Product managers were assigned to the new products and began their work. At a certain point in time, the product documentation had to be developed. The briefing for the product documentation department was prepared and provided to the department. The department reacted with the following statement: It was not there to come up with anything (as requested in the briefing), but had so far only compiled texts and pictures in a desktop publishing program.

This department had neither the resources nor the specialist knowledge to produce professional technical texts, technical drawings and industrial photographs. The problem could be solved in this case by outsourcing to a professional service provider.

Unfortunately, the reasons described above usually occur in combination in companies. The drift of the product manager into functional areas endangers the fulfillment of the strategic responsibility for the product or product group. As a product manager, you have a clear management function as the person strategically responsible. This management function is clarified in the next step and a demarcation of the product management from the operational business is carried out.

4   A Fundamental Decision: The Positioning of the Product Manager in the Company

The positioning of product management in your company is one of the essential fundamental decisions that management (MD, CEO, business unit management) has to make at your company. Based on this positioning, all further topics for the successful implementation or optimization of product management can be derived. This fundamental decision clarifies in your own company whether you, as a product manager, will be positioned as a management function with strategic responsibility for the product or product group, or whether you will be anchored in the company merely as a coordination and support function.

4.1   Positioning Possibilities for Product Management

Product management is essentially positioned according to the assignment of strategic and/or operational tasks to product management. Figure 10 shows the basic possibilities of positioning.

Fig. 10 Positioning of product
management
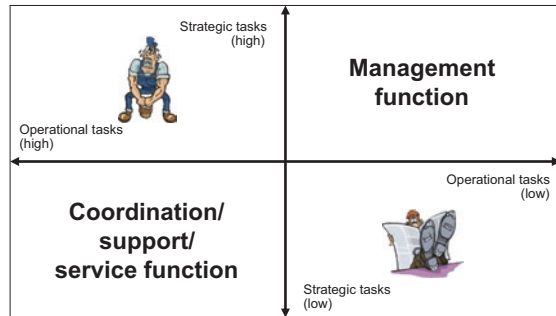
The different types of positioning of the product manager according to this matrix can be understood as follows:

The Product Manager as a "heavy worker"
- Strategic tasks: High
- Operational tasks: High

This "product manager" is certainly not to be envied. Strategically responsible, he must also perform all operational implementation tasks. This situation, which usually arises from the delegation of tasks, is not a sensible positioning for either the product manager or the company. Product managers in such situations usually have a short length of stay in the position or in the company. It is also interesting to note that companies usually do not have the entire product management team in this positioning. Some product managers always manage to assert themselves against task delegation. This is an indication that the personality traits of the product managers play a crucial role, even if the general conditions and the technical skills are mostly the same.

The "leisure-oriented" Product Manager
- Strategic tasks: Low
- Operational tasks: Low

This positioning of the product manager is not found in practice (possibly to your chagrin).

The Product Coordinator
- Strategic tasks: Low
- Operational tasks: High

This "product manager" is clearly operationally oriented. Although he or she is often called a product manager in practice, he or she is not. Companies that use this form of "product management" tend to use rather the following designations:

- Product coordinator
- Product specialist
- Product support
- Junior product manager
- Product assistant

Since these "product managers" have no strategic responsibility for the product or product group, they cannot be held responsible for the result (e.g. revenue, market share, contribution margin …) and thus cannot be "paid" according to these performance criteria. However, among these "product managers", there are numerous areas of focus in terms of operational orientation and operational responsibility. Some are more operational in the technical areas, others have more of a focus on marketing and sales. These focal points have an impact on the organizational integration of this form of "product management".

The "real" Product Manager
- Strategic tasks: High
- Operational tasks: Low

The real product manager! He or she is rightly called a product manager. As the holder of a strategically responsible management position, he or she is fully responsible for the result of the products/product groups. This product manager should also be paid according to the appropriate performance criteria. With his or her strategic task profile, he or she can significantly shape and influence the success of the product. This positioning of product management is increasingly gaining acceptance in companies. Figure 11, based on an explorative survey by MSG Management Systems St. Gallen, shows the current situation of strategic
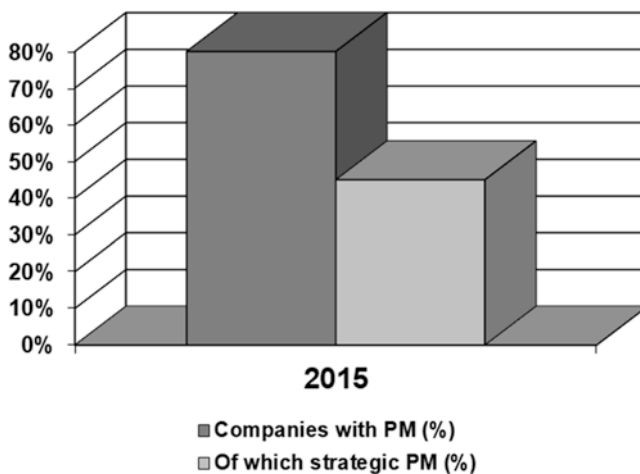
Fig. 11 Situation of strategic responsibility

positioning in product management. This figure illustrates the situation in the industrial sector in German-speaking countries. The percentage of companies that have a strategically aligned product management is still relatively low. Although many companies strive for a stronger strategic positioning, the implementation success is still relatively limited.

4.2   Operational and Strategic Product Management

Of course, the distinction between operational and strategic product management cannot be made 100% in practice. The classic 20:80 rule also applies here. Furthermore, even in the work processes of a strategically oriented product manager, there are times and situations in which an operationally oriented activity makes sense, if not a prerequisite for success. In addition, even if you are strategically positioned as a product manager, you must constantly manage, coordinate, control, and optimize day-to-day operations. Figure 12 shows the temporal focus of the operational activity of a product manager in the context of the product launch.

In the product introduction phase, the first phase in the life cycle of a product on the market, it often makes sense to provide operational support to the functional areas. This support is especially needed in sales, since new products, despite extensive product training, are not yet as firmly anchored in the sales mindset as existing products.

Example: Operational deployment of a strategically oriented product manager
　　A company in the consumer goods industry had revenue problems with the market launch of a new product. Despite product training for the sales team, many sales representatives had great difficulty selling the new product, which required explanation, to the customer. Further
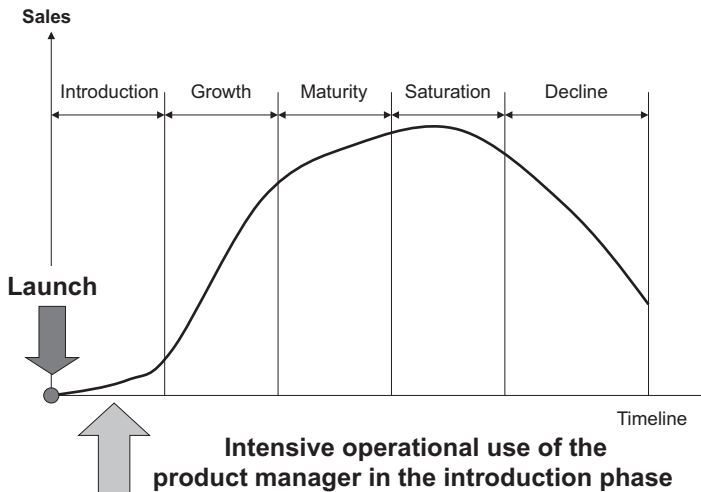
Fig. 12 Operational focus of a product manager

complicating the situation was the fact that a new technology was being used for the new product. The product manager, who was anchored in this company as a strategic management position, had to increasingly support the sales department during the introduction phase in order to ensure a successful launch of the product on the market.

This included the following operational activities:

- Accompanying sales reps during customer contacts (selective)
- Coaching of sales reps by telephone e-mail, etc.
- Presentation of successful reference examples to customers (key accounts)
- "Retraining" of individual sales employees

However, operational sales support activities should clearly be limited in time and scope. Support after the introduction phase of a product should be limited to a few special cases. You must set limits here!

In addition, there are also situations where the resources are not available in the company for the operational handling of tasks. In larger companies with several hundreds of sales representatives, it does not make sense for the product manager to carry out product training. Here, there are usually separate departments that handle this operational activity. While the product manager will be involved in creating the training program and will likely be at pilot events, the implementation will be done by that department. However, if your company only has a few sales representatives, it may well be necessary for you as the product manager to carry out the operational activity of product training.

5 A Diverse Spectrum: Job Description and Job Profile of the Product Manager

The job description and requirements profile of product managers naturally depend on the positioning of product management in the company. In the following, these differences will be worked out in detail.

5.1 Job Description of a Product Manager

The operational or strategic focus of a product manager is usually defined in the job description. You can clearly see the differences between strategically oriented and operationally oriented product managers from the following job descriptions. The term product coordinator was chosen here for the operationally oriented form of product management, while the term product manager was assigned to the strategic form of product management.

Example: Job description of a product coordinator

- **Job title:** Product coordinator
- **Supervisor:** Product manager
- **Objectives:**

  – Support in the management, coordination and implementation of product-related measures and activities within and outside the company
  – Support of the product manager in strategic product management and in operational implementation
  – Ensuring product information and product consulting of the respective departments (sales, R&D, marketing, application technology, service …) in the company
  – Ensuring technical coordination between the company's functional departments

- **Tasks:**

  – Support in carrying out market and competitor analysis as well as trend analysis
  – Collection, processing and archiving of market and competitor information
  – Forwarding/distribution of important information to the relevant departments and stakeholders
  – Carrying out technical analysis of competitors' products
  – Participation in the creation of market and product specifications as well as in the development of market launch concepts/plans and product market plans or sales plans
  – Participation in the elaboration of the product development strategy together with the development department
  – Participation in the development and conception of the product-specific manufacturing network together with R&D, production and application technology departments
  – Definition of requirements for quotation and processing systems, logistics systems, quality systems, controlling systems, etc.
  – Product-related support of sales and key account management in the operative business
  – Creation of sales-oriented product documentation and the necessary sales documents (sales manual, reference examples …)
  – Analysis and development of measures to reduce product costs/manufacturing costs together with R&D, production and application technology
  – Implementation of sales-related product training for internal (sales, key account management) and external sales partners
  – Collaboration in the development, conception and implementation of operative marketing and sales measures
  – Preparation and optimization of product controlling for product management

From this example, you can see that the objectives and tasks are operational in nature. Although the product coordinator collaborates on strategic tasks, the strategic responsibility lies with the product manager. The operational goals for the product coordinator are agreed upon together with the product manager.

Example: Job description of a product manager

- **Job title:** Product manager
- **Supervisor:** Business unit manager
- **Subordination:** Product coordinator

- • **Objectives:**
  – Strategic product leadership and optimisation of the implementation management of the assigned product/product group
  – Optimization of revenue, contribution margin and cost management of the product/ product group
  – Optimization of the control, coordination and implementation of all product-related measures and activities within (management, business unit management, functional areas) and outside the company (agencies, service providers, sales partners, customers …)
  – Optimization of product-related information management within the company and with the respective market partners
- • **Tasks**:
  – Securing/obtaining product-relevant market and competitor information as well as relevant trends and developments on the product market
  – Positioning of the products in the product market (price-performance positioning)
  – Determination of the advantages and disadvantages of the products in a competitive comparison as well as the value position of the products
  – Creation of requirement profiles (market specifications) for new products or product modifications
  – Approval of the product specifications prepared by R&D (in terms of costs)
  – Development of market launch concepts/plans and longer-term product strategies (business plan)
  – Development of product market plans on an annual basis in terms of target plans, action plans, budget plans, schedules …
  – Coaching of R&D in the product development phase. Participation in important milestone meetings in the product development process
  – Implementation of product controlling (controlling cycle) on a monthly basis
  – Analysis of revenue development, product profitability and market share development
  – Compilation of the marketing mix strategies in detail (pricing strategies, assortment strategies …) as well as determination of marketing and sales relevant focus measures
  – Management of the entire product life cycle (life cycle management) with regard to innovation, market launch, product modification (relaunch) and product elimination
  – Ensuring sales support with regard to product-specific sales documents and sales-supporting documents (sales manuals, argumentation aids …)
  – Compilation of the marketing mix in detail (mailing campaigns, trade fair appearances, advertising measures …)
  – Budgeting of measures and budget control
  – Provision of market- and competition-oriented information for the business unit management and the management for the product portfolio
  – Participation in the product portfolio management of the company/business unit

In this example, you can see the strategic orientation of the product manager. Both the objectives, which include responsibility for revenue and contribution margin, and the tasks, which include strategy development and conception, are strategic in nature.

The different positioning possibilities of product management lead to a clear demarcation in terms of objectives and tasks within the company. However, these demarcations also lead to the fact that the product manager is very strongly integrated into the strategic

processes of the company, while the product coordinator, or generally the operationally oriented product manager, is more involved in the operational implementation/execution processes.

This integration into the different processes is important for a well-functioning product management in your company. Both levels, the strategic as well as the operational level, have to be managed successfully to ensure product success. Therefore, both forms of product management can exist in your company and work together successfully.

The example of a company with international product management shows this cooperation between operational and strategic product management (see Fig. 13).

This company with the head quarter HQ in the United States has appointed an international product management (IPM) for the main products and product groups, referred to as "mega brands". The international product managers are strategically responsible for revenue and also for the contribution margin situation of the product or product group worldwide. In the operational implementation, the IPM is supported by a national product management (NPM). The national product management is assigned for all important countries. The NPM for the respective country has operational implementation responsibility and is not strategically responsible for the product.

The following tasks are assigned to the IPM:

• International product positioning
• Brand management
• Product strategy worldwide
• Determination of country priorities (country portfolio)
• Product differentiation by country
• Product planning worldwide (top-down)
• Determination of the marketing mix strategies (global)
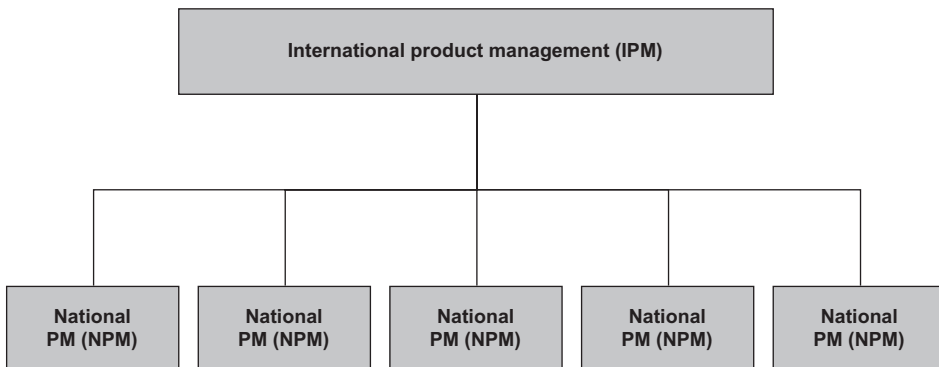
Fig. 13 International/national product management

The following tasks are assigned to the NPM:

- Implementation of the product strategy in the countries
- Product planning (bottom-up) for the country
- Adaptation of the product strategy to country requirements (in consultation with the IPM)
- Controlling of the implementation in the countries
- Collection and processing of country-specific market data
- Monitoring of country-specific trends and developments
- Implementation of the marketing mix at country level

The operational objectives between IPM and NPM are coordinated once a year as part of a goal agreement process.

5.2   Other Tasks of a Product manager

In addition to the actual tasks of a product manager already described, you must also take care of issues that are not in your original area of responsibility as part of your job description. This means that you must also assert product-related interests in the functional areas. Although you usually do not have line authority in this context, you must nevertheless succeed, through appropriate intervention, in ensuring that product-relevant topics are taken into account early and sufficiently in the functions. In sales, for example, these can be the following topics.

Example: Product-related interests in the functional area (sales)

- Evaluation of the sales organization
- Evaluation of distribution channels (in terms of suitability, performance)
- Enforcement of product training
- Design of sales controlling (customer and product related!)
- Design and assignment of sales costs to products
- Optimization of sales efficiency (product-related)
- Influence on sales management (e.g. opinion leader focus in the context of the product launch phase)
- Product-related sales promotion for the sales force
- Ensuring product priorities
- Establishment of own customer contacts (for market research purposes)
- Participation in the filling of vacancies for sales representatives

At first glance, it is obvious that these topics are the responsibility of the sales manager or sales management. However, as a product manager, you must intervene here in a targeted manner to ensure that your product or product group is sufficiently considered in the relevant decisions. If this is not done, serious problems can arise, especially during implementation.

Example: Lack of enforcement of product-related interests

A company in the industrial automation sector introduced a new product group. With this new introduction, a technology change in the company was carried out at the same time. With the previous products, the respective product function was performed mechanically. With the new product generation, the product function was implemented electronically. An additional advantage was that the new product group could be adapted practically at will to the respective customer requirements due to the possibility of programming. The product was developed and introduced to the market at great expense. Unfortunately, however, the product management had neglected to check the product-related general conditions, especially in the sales department. The sales representatives in the sales offices had previously sold mechanical products. However, selling electronic products required knowledge of electronics and also a different approach to the customer. The company was forced to secure this necessary sales know-how relatively quickly by hiring and training new sales representatives. However, this delayed the launch of the new product group by almost a year.

Product managers must understand how to consciously shape the company's internal resources and frameworks. In some cases, this can be done very quickly and easily because you have access to the resources within your own sphere of influence. In other cases, it takes longer and requires more effort because the responsibility and the implementation are not within your own control. Another example from the construction supply industry shows a successful intervention of a product manager.

Example: Enforcement of product-related interests

A product manager from a company in the construction supply industry had the task of launching a new product. The company was a late entrant to the market in this product area. The established competitors had already well secured and delineated their market positions. In order to break the competitors' position, the product manager tried a penetration-price strategy as a key strategy element. The product price (list price) was to be set well below that of the other suppliers and increased at six-monthly intervals. This strategy was intended to build up a high market share in the short term. The penetration-price strategy was developed in close cooperation with the company's sales management. In addition, a premium system for sales was developed and implemented by product management for the introduction phase. Although the sales management was responsible for the development of sales-related premium systems, a common working basis was quickly found for this purpose through the good cooperation between sales and product management.

The premium system developed in this company by product management for the duration of the introductory phase was necessary because in recent years the company's sales representatives had sold more and more on the basis of price. Product benefit arguments were poorly communicated, if at all. As a consequence, this approach led to shrinking margins and price erosion. In order to prevent this phenomenon and to set clear limits to the penetration-price strategy, the premium model was developed as shown in Fig. 14.

In addition to the list price, a discount model was developed. With this model, the sales department had room for negotiation with the customer. Within the quantitatively oriented discount framework, qualitative elements for pricing were also integrated (relationship pricing). The sales controlling system of this company was designed in such a way that an
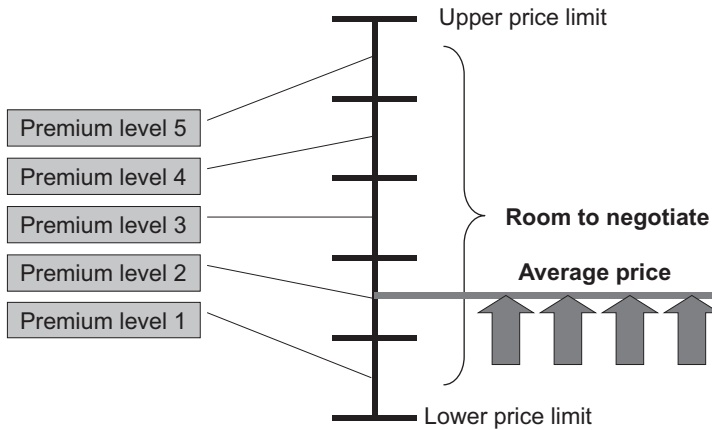
Fig. 14 Product-related premium model

average price per month, per product group and per sales representative could be calculated. In order to bring this average price as high as possible, the maximum price (upper price limit) and minimum price (lower price limit) were calculated. This negotiation range (room to negotiate) was divided into five segments and premium levels were assigned. Sales representatives whose average price was in premium level one received no additional premium. Premium level five provided a considerable incentive. Here, the progressive premium increase took full effect.

It is precisely the activities that do not directly belong to the product manager's area of responsibility that are sometimes critical to success. Product managers often tend to ignore these areas of responsibility.

Product managers, of course, provide many justifications for this:

- "That's not my responsibility."
- "The functions have no interest in that."
- "The expense of that is too great for me."
- "I don't want to go through that frustration again."
- "I can't do it with Mr. X, he's not a good fit for me personally."

However, an entrepreneurial and strategically oriented product manager personality must learn to deal with such situations in order to be successful. Withdrawing from or avoiding these tasks is neither advisable for your personal development as a product manager nor for product success. In doing so, don't let the functional areas scare you away. You can accomplish a lot with perseverance and staying power! Stay on the ball, even if you have to repeat your interventions more often.

However, it can happen that frustrating individual experiences depress the mood (see Fig. 15).

Fig. 15 Frustration experiences in product management. (Source: Microsoft Clipart)

Tasks \ Responsible functions	Product manager	Managing director	Marketing	Sales	Sales promotion	Market research	Advertising	Sales representatives	Production	R&D	⋮
Marketing planning and budgeting											
Market research											
Sales promotion											
Product market analysis											
...											

Fig. 16 Basic scheme of the function diagram

5.3   Interface Definition in Product Management

Once you have definitely defined the tasks of the product manager, you can develop the interface definition in detail in the next step. The function diagram is available to you as a proven tool for this. In the function diagram, the departments defined in the company organization are contrasted with the tasks defined in the product manager's job description (see Fig. 16).

You can now start to define the interfaces between the functional areas and the product management regarding tasks and responsibilities. For this purpose, the tasks are further divided into subtasks or process steps and assigned accordingly.

A company in the service industry uses the following simple symbols to delineate tasks between product management and product coordinator (both positions are used in this company) and also to delineate between product coordinator and the functional areas:

- D … Decision
- I … Implementation
- P … Participation

The exact interface definition is made with the help of the function diagram. For this purpose, as shown in Fig. 17, the central main tasks in product management are used and linked to the different types of product management by means of the three symbols (D, I and P).

The tasks assigned are based on the product planning and implementation process defined in the process manual.

In a somewhat modified form, the function diagram is also used in this company to define the interfaces between product coordinator and functional areas (see Fig. 18).

You can, of course, use additional symbols for interface definition as required.

Tasks	Product manager	Product coordinator
Structuring of product market	I, D	P
Information gathering (product market)	D	I, P
Analysis (product market, competition)	I, D	I, P
Development of product strategy	I, D	P
Preparation of product plans (annual plans)	I, D	P
Presentation of business plan	I, D	P
Annual target agreement	I, D	P
Implementation of the product-related measures	D	I, P
Product controlling	I, D	I, P

Fig. 17 Interface definition between product management and product coordinator

Tasks	Functions	Product coordinator
Development strategy (technical)	D, I (R&D)	P
Technical product analysis	P (R&D)	I
Development market specification	P (Product management)	I
Development product specification	I (R&D)	P
Process adjustments logistics	D, I (Logistik)	P
Product training	P (HR)	I
Product documentation	P (R&D)	I
Market communication	I (Marketing)	P
Sales planning	D, I (Sales)	P

Fig. 18   Interface definition between product coordinator and functions

- O … Order placement
- B … Briefing
- E … Execution
- D … Decision
- C … Controlling
- I … Initiative
- P … Planning

It makes sense to set up and assign the interfaces together with the functional areas. For this purpose, you can bring together the most important functional areas in a workshop and jointly define the interfaces at least for the main tasks of product management. A regular review and, if necessary, adjustment after three to six months is recommended.

The assignment of interfaces for the task of market research is shown as an example in Fig. 19.

The work package "product-related market research" is divided into process steps and assigned to the relevant functional areas. Through this allocation, the responsibility (implementation responsibility) for the individual process steps is defined and clearly assigned.

- I … Initiative: The product manager initiates product-related market research.
- B … Briefing: The product manager prepares a briefing for the product-related market research.
- P … Planning: Market research is planning and creating an implementation concept with budget on the basis of the briefing.

Tasks \ Responsible functions	Product manager	Managing director	Marketing	Sales	Sales promotion	Market research	Advertising	Sales representatives	Production	R&D	…
Marketing planning and budgeting											
Market research	I,B,D					P, E					
Sales promotion											
Product market analysis											
…											

Fig. 19 Assignment of interfaces

- D … Decision: The product manager makes the decision to implement based on the implementation concept.
- E … Execution: Market research carries out the measure according to the implementation concept and delivers the results to the product manager.

You assign all further tasks according to this procedure. You should also consider integrating the subtasks for the functional areas determined from this procedure into the job descriptions of these functions.

The integration of product-related tasks into the job descriptions of the functional areas facilitates your interface management and your cooperation with the functions.

5.4 Requirements Profile of Product Managers

In addition to the professional requirements, the personal requirements for you as a product manager are very high. The following factors for a successful product manager are often mentioned in practice:

1. **Entrepreneurial personality:** Product managers should think and act entrepreneurially. In the past, the management (MD, CEO) or the business unit management shaped the product management until this task has been delegated to the product management. The product manager has thus become the "product entrepreneur in the company" who has a significant influence on the success of the product or product group.

2. **Product and market orientation:** Product success does not only require product knowledge. The market in which the product is marketed and sold sets the tone. Specific knowledge of the product market and a clear market- and customer-oriented basic attitude of the product manager are necessary for this.

3. **Moderator with team spirit:** Product managers with a "lone wolf" profile are usually not successful. Product success depends on many factors. Different departments, functions and people must work well together to achieve outstanding results. The product manager must bring in this moderation and team approach.

4. **Initiative and assertiveness:** The product manager is a "playmaker" bringing energy into the system (organization). The product manager must also motivate if something does not go well in the planning or implementation phase and must be able to deal well with resistance and clearly communicate and assert goals and interests.

5. **Strategist with analytical and conceptual skills:** The product manager does not necessarily have to be the operational implementer, at least not in the role of the strategically responsible product manager. However, he or she must be able to analyze the product market, develop a reasonable strategy and deliver a realistic plan.

6. **Persuasiveness and enthusiasm:** The product manager must sell his or her product and concept within the company. In addition, he or she must also ensure that the product management position in the company is clear to everyone involved. This activity of "internal marketing/selling" must be done with conviction and enthusiasm. If the sales department in the company is convinced of the product, the sale is usually assured.

The following example shows some of the tools of product management that, in addition to personal meetings, are used for internal marketing/selling and for clarifying the positioning and roles of product management in companies.

Example: Instruments for internal marketing/selling

- Product management newsletter (e.g. per quarter)
- Product management events (e.g. twice a year)
- Bulletin board/hangout
- Participation in meetings (functions, management, business unit management …)
- Product management e-mail news (e.g. monthly)
- Product management homepage on the intranet
- Regular articles in the employee magazine
- Integration of the product management into the company presentation
- Articles about product management in the customer magazine
- Presentations to key accounts (key customers)

7. **Creative and innovative:** The product manager does not only focus on the short-term success of the product but has to ensure that the product brings success in the long run. This requires not only long-term planning, but also a creative and innovative approach to the product market in order to achieve appropriate differentiation from the

competition not only in the product (USP, Unique Selling Proposition), but also in the marketing of the product (UMP, Unique Marketing Position).

8. **Good communicator:** Product managers must be good communicators. Not only do they have to master different "language styles" (a technician not only has his own vocabulary, but also a different language style compared to the marketing- or sales-oriented person), but they also have to be able to communicate with different personalities on different levels. Communication support techniques such as conflict management, negotiation and presentation techniques are of course also part of the product manager's repertoire.

In practice, the requirement profiles of product managers are adapted to the respective specifics of the product market and the company. The product management requirement profile in the following example shows you the specifics of a company in industrial electronics.

> **Example: Requirements profile product management (excerpt)**
>
> - Communicative personality
> - Good networker inside and outside the company
> - Good perception and sensitivity
> - Clear, simple and unambiguous language
> - Good combinatorics and logic
> - Strong assertiveness
> - Structured work and procedures
> - Consistency in implementation (controlling)
> - Powerful and energetic even in critical phases
> - Good technical knowledge (technology)
> - Enthusiastic personality
> - Good motivator
> - Full identification with the product
> - Idea seller

The importance of filling the right position in product management is clear from what has been presented so far. The central basic problem for you as a product manager "**responsibility without formal authority**" can only be solved by appropriate personality traits.

In addition to the goal agreement systems described in the next section, the principle of "**leadership through persuasion**" is a key success factor for your work in product management.

5.5   Product Orientation and Market Orientation

One often hears the statement that the product manager acts in a product-oriented way and does not proceed in a market-oriented way. This is also used to justify that marketing and/or sales should supplement the "missing" market orientation of the product manager.
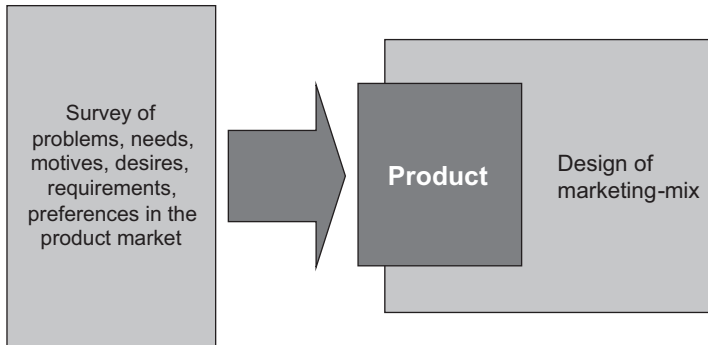
Fig. 20 Market-oriented mindset of the product manager

However, these and similar arguments are not valid. In this context, market orientation must be understood as a market-oriented mindset and is an essential element of the product manager's personality traits. Without a market-oriented mindset, any product manager would fail in his task. However, the market-oriented mindset of the product manager is focused on his product market and is principally external in nature (see Fig. 20).

Market-oriented thinking is at the beginning of every effort. As a product manager and product market expert, you orient yourself to the needs and requirements of the product markets (external orientation) in order to then design the product and ensure that it is marketed in the best possible way (internal orientation). If one were to divide this market-oriented approach, one would thereby reduce the product manager to a development function for the product. Market-oriented and market-driven product management are the original tasks of the product manager. However, this also includes a proactive approach. If, for example, a customer himself comes up with a suggestion for product improvement, one can strictly claim that the market-oriented mindset of the product manager lacks the element of proactivity.

The customer has a problem that is still latent (e.g. with the use of the product in a specific application). At some point, the customer recognizes and/or identifies this problem and independently searches for a solution. In this process, the entire intellectual value creation lies with the customer. The supplier merely performs a "workbench function" and implements the customer's specifications.

Proactive market orientation, however, means for you to be constantly on the lookout for such latently existing problems at customers (e.g. by observing the application of the product at the customer's site) in order to identify the problem early/timely and to be able to offer the customer a solution yourself (see Fig. 21).

Early and in time means: Before the customer does it. This degree of proactivity characterizes the successful product manager, and this is only feasible through consistent and intensive market orientation.

Therefore, the role of product manager and product market specialist involves not only knowledge of product-related requirements, but also topics that were previously attributed
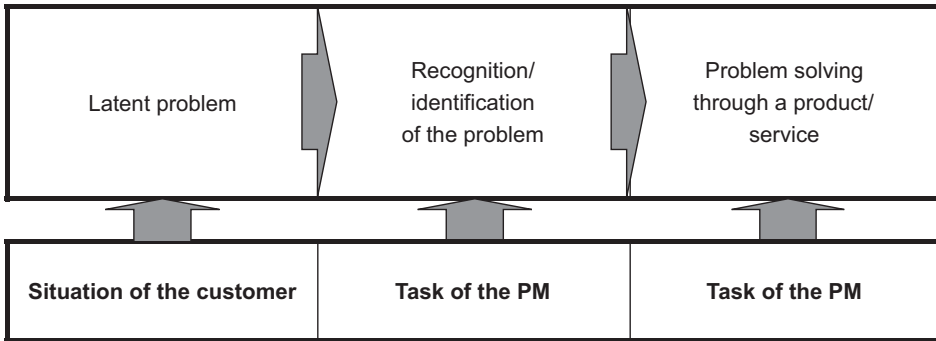
Fig. 21 Proactive market-oriented mindset

to classic marketing. Product managers also take care of product marketing in addition to product design (product and product-related service). These two areas of action are central and important for product management and therefore have an influence on the definition of the interfaces to marketing or the marketing department. Ideally, you generate products, solutions and services that are unique compared to the competition (Unique Selling Proposition – USP), and at the same time you ensure that the marketing of the products is unique (Unique Marketing Proposition – UMP). The UMP concept is an approach that is already well known but unfortunately forgotten. You simply try to be different or better in marketing the products than the competition. This can be used for individual marketing mix elements (e.g. a Unique Advertising Proposition – UAP) or can be used in combination with other marketing mix elements.

Example: Starting points for UMPs

- Unique Distribution Proposition
- Unique Packaging Proposition
- Unique Pricing Proposition
- Unique Advertising Proposition
- Unique PR Proposition
- Unique Promotion Proposition
- Unique Delivery Proposition
- Unique Event Proposition
- Unique WWW Proposition

So in the future, don't just compare your products with those of your competitors, but also put your marketing mix to the test. If you find that there is no significant difference, then you have identified another opportunity for competitive differentiation. For comparable products and services, a UMP can be an alternative to price wars. But again, the imperative is not to get bogged down. Pick out key areas in the marketing mix and focus on them.

6 Open on Many Sides: The Process Levels in Product Management

As a product manager, you are influenced by a variety of processes in your work. The results of corporate planning processes have an influence on the product strategy, functional planning processes (e.g. sales planning) have an impact on your implementation management. Therefore, make sure that product management is integrated into the different process levels of a company. A simple three-level model, as shown in Fig. 22, will help you to do this.

The three levels do not reflect the organizational or hierarchical assignment of product management. They are merely conceptual levels that are relevant to the integration of product management. The individual levels are presented in detail below.

6.1 The Dispositive Level

The top level (dispositive level) is the level at which the management (MD, CEO) or, in the case of companies with a business unit structure, the business unit management is active (see Fig. 23).

Here, a product portfolio is created to optimize the ROI (Return On Investment), the respective products or product groups are assessed according to market and competitive aspects, basic strategies for the products are derived, and resources are allocated and budgeted.

Strategically oriented product managers are intensively involved in these tasks. They provide product-related market and competitive information relevant for portfolio evaluation and likewise contribute their product-related interests to the discussion. In recent years, various methods of portfolio analysis and management have been widely applied.

Level	Goals/Tasks	Position
Dispositive level	Optimization ROI Product portfolio management Basic product strategies Resource allocation	MD, CEO, business unit management
Strategic level	Optimization revenue/contribution Strategy development/planning Control/coordination/steering	Product manager
Operational level	Implementation/execution	Functions

Fig. 22 Process levels in product management

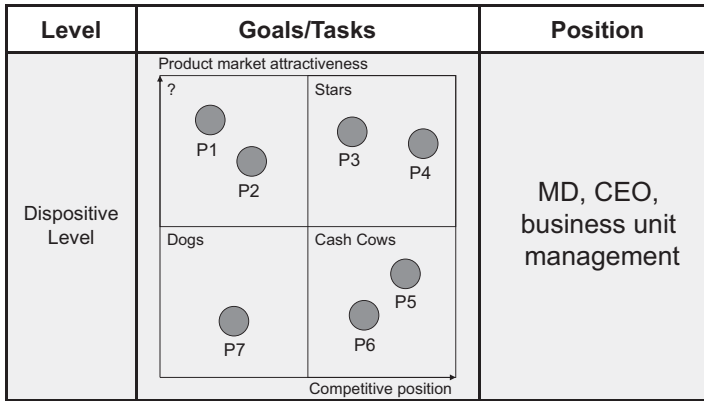| Level	Goals/Tasks	Position
Dispositive Level	Product market attractiveness ? Stars P1 P2 P3 P4 Dogs Cash Cows P7 P6 P5 Competitive position	MD, CEO, business unit management

Fig. 23 The dispositive level (overview)

Among the best known portfolio approaches are the market growth/market share portfolio developed by the Boston Consulting Group and the market attractiveness/competitive position portfolio used by General Electrics. These portfolio models are used to evaluate product groups or individual products, either individually or in combination. The generic strategies provided with the portfolio models serve as a basis for discussion when deciding on the basic strategy to be adopted for the company's products or product groups.

To help you evaluate these portfolio models for use in product management, they are briefly presented here and the basic principles are shown in application.

6.1.1 Market Growth/Market Share Portfolio

One of the world's largest consulting firms, the Boston Consulting Group, developed a two-dimensional model called the market growth/market share portfolio (see Fig. 24). The vertical axis represents the annual growth in the product market (in percent), the horizontal axis represents the relative market share to be calculated compared to the largest competitor. If the relative market share is 0.4, it means that the market share of one's own product is only 0.4 times that of the largest competitor. A value of 2 means that the own market share is higher than the market share of the largest competitor by a factor of 2.

The relative market share of 1 is taken as the center line in the matrix and means that the own market share is equal to that of the main competitor in the product or product group. For the horizontal center line, the market growth of the total market is often used.

The five circles symbolize the positions of the five products/product groups of this company in the portfolio matrix. The diameter of the circle represents the revenue of the own company in the product group. The wedge (see product 1 in Fig. 24) is often drawn in as additional information and indicates the size of the contribution margin (CM) as a percentage of product revenue. Alternatively, the diameter of the circle can also represent the size of the product market and the wedge the market share of one's own product.
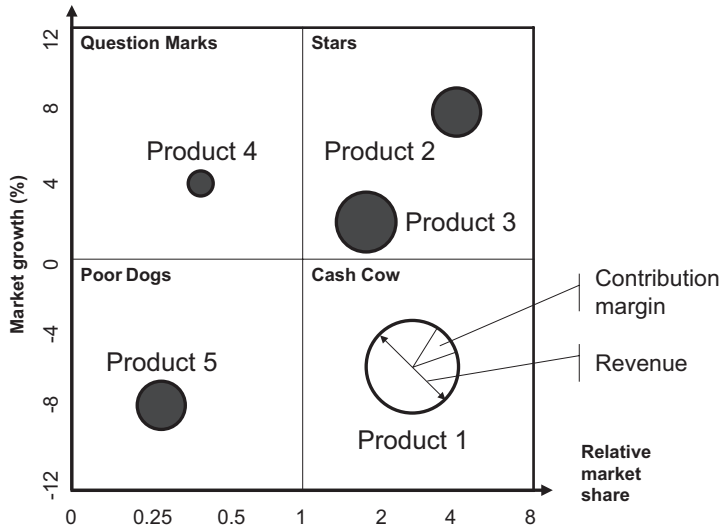
Fig. 24 Market growth/market share portfolio

The matrix is divided into four fields, to which the portfolio designations of the products are oriented and on the basis of which the generic strategies can be assigned.

However, the market growth/market share portfolio does not answer the question of whether growth in your own product is keeping pace with growth in the overall product market. To answer this important question, you can use the growth matrix (see Fig. 25). This matrix compares your own growth in the product (in percent) to the growth in the overall product market (in percent).

If the growth in the own product is higher than the growth in the relevant total product market (products 3, 4, 6 and 7 in Fig. 25), the company gains market share. If the growth in the own product is lower than the growth in the relevant total product market (products 1 and 2 in Fig. 25), the company loses market share in these products. Product 5's own growth is about the same as that of the relevant product market, and so it holds the market share. As with the market share/market growth portfolio, the diameter of the circle represents the own company's revenue in the product.

With the support of the analysis results of the growth matrix, specific product-individual strategies can be derived with the help of the generic strategies of the Boston Consulting portfolio. The following generic strategies (norm strategies) can be used for strategy considerations:

- **Expand**: The company's goal is to further increase its market share in this product area. To this end, additional funds are invested or contribution margins are waived in the short term.
- **Harvest**: Here, the company is pursuing the goal of withdrawing money from the product area.
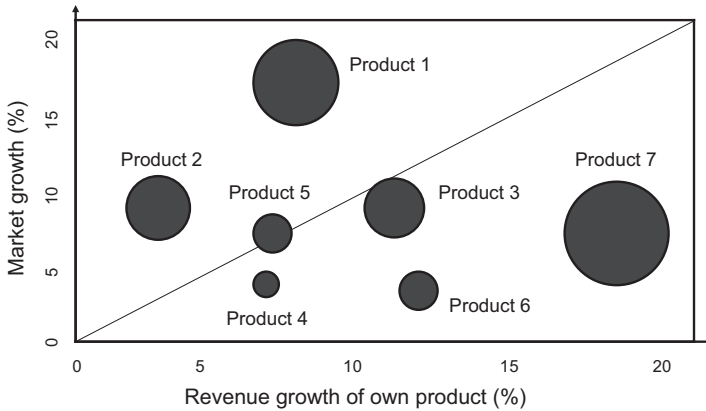
Fig. 25 Growth matrix

- **Eliminate**: The company decides to abandon the product area, either by selling or abandoning it. The resources thus freed up are used in other product areas or put into the development of new products.
- **Hold**: In this generic strategy, the company tries to maintain the market share in the product area at the current level.

These generic strategies can now be assigned to the individual fields in the market growth/market share portfolio (see Fig. 26).

The generic strategies according to the four fields are to be understood as a basis for discussion. Further facts or a supplement with additional analysis (experience curve analysis, life cycle analysis, etc.) are to be included in order to ensure an accurate assessment and strategy determination.

Based on the actual portfolio and the chosen basic strategy for the product, you can create a target portfolio in which the target position of your product or product group is entered. In addition, you should check whether the product portfolio is balanced. Missing cash cows or an overweight of poor dogs pose a danger to the company in terms of risk and financing.

The product portfolio shown in Fig. 27 shows the situation of a company from the pharmaceutical sector. A lack of stars and cash cows has meant that the company itself has not been able to raise sufficient funds to finance the growth of question mark products.

The product portfolio shown in Fig. 28 is balanced. This company from the consumer goods industry had recently carried out a consistent portfolio adjustment in which all poor dogs were eliminated. Products in good cash cow and star positions ensure financing of the question mark products.

Unbalanced product portfolios are in some cases also caused by product management itself.
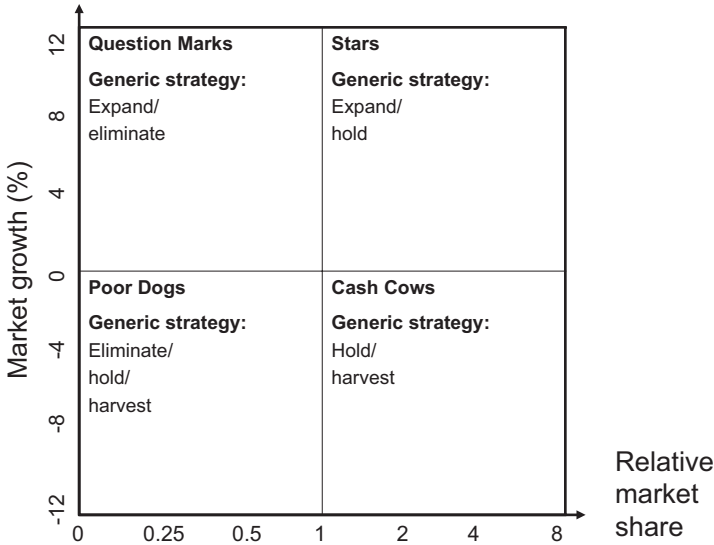
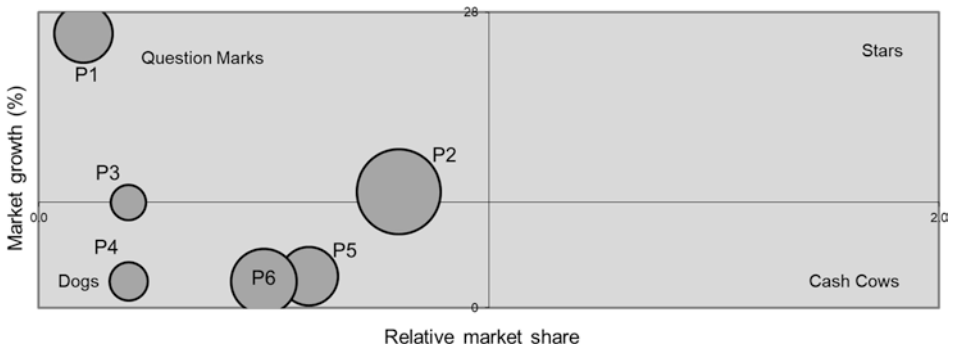**Fig. 26** Standard strategies in the market growth/market share portfolio
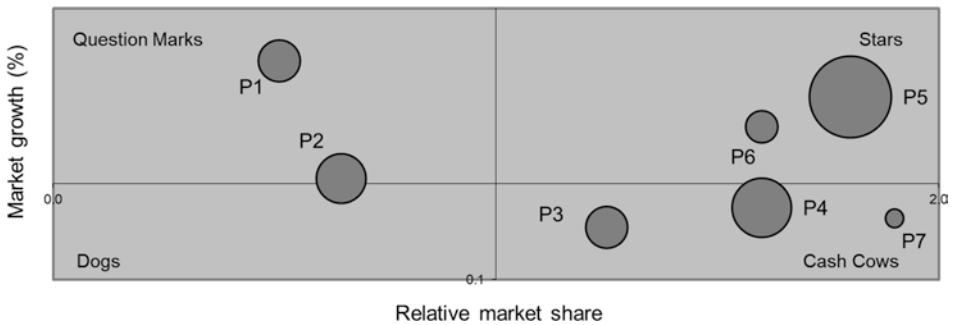

Fig. 27 Unbalanced product portfolio

Fig. 28 Balanced product portfolio

Example: Unbalanced product portfolio

A company from the automotive supply industry introduced portfolio management in the measurement business unit. For this purpose, the business unit manager formed a portfolio management team in which all product managers of the business unit and the strategic planning department were integrated. The relevant data regarding product market growth and market shares were collected and evaluated in the portfolio. The results were remarkable. The business unit had been investing for years in a product that was classified as a "poor dog" in the portfolio. A particularly active product manager had managed to raise significant funds for this product time and time again. For the product manager, a success! For the company, a disadvantage, because these funds were lacking in other product areas. To solve the problem, a reassignment of product managers was made in the business unit. The product manager mentioned above was assigned to an important product group in the business unit.

6.1.2 Market Attractiveness/Competitive Position Portfolio

The market growth/market share portfolio reduces the complexity of product markets extremely to two factors (market growth, relative market share). Therefore, more precise targets and measures cannot be derived directly. This simplification has also often been a point of criticism of the market growth/market share portfolio. If additional influencing factors are introduced into the evaluation of market and competition, a multifactor portfolio model can be created.

This model was developed in collaboration between McKinsey and General Electric. Each product or product group is placed in the matrix on the basis of two dimensions. Market attractiveness and the company's own competitive position are used for this purpose, because success in the product market largely depends on whether attractive product markets are present and whether the corresponding capabilities can be built up against competition. If one of the two dimensions is not well developed, no special results can be realized in the product market.

The individual influencing factors for the evaluation of market attractiveness and competitive position must be determined individually for each company and product. The influencing factor innovation is an important influencing factor for a company that wants to position itself as an innovator and plays a major role in the evaluation of market attractiveness. For a company that is active in less innovative product areas, this factor is rather negative.

In practice, catalogues of criteria are always used, but the selection and weighting of the individual influencing factors remains your entrepreneurial decision.

The following examples show individual factors influencing market attractiveness and competitive position.

Examples of influencing factors used to analyse market attractiveness

- Size of the product market
- Growth in the product market
- Position in the product life cycle
- Price elasticity/price level

- Innovation rate/differentiation rate
- Intensity of competition
- Substitution rate (e.g. technology substitution)
- Negotiating power of customers
- Barriers to entry
- Fluctuations in demand
- Investment intensity

Examples of influencing factors used for the analysis of the competitive position

- Relative market share
- Development of relative market share
- Image/awareness
- Product/service advantage
- Advantages in marketing/sales
- Cost position
- Technology position
- Product range
- Price position
- Distribution coverage
- Production capacity

The two influencing factors market growth and relative market share are usually also included in this portfolio model. The compiled influencing factors are weighted accordingly and evaluated for each product or for each product group (see Figs. 29 and 30).

For the weighting (W) one chooses a weighting factor between 0.00 and 1.00. The sum of the weighting factors must result in the value 1.00. The actual evaluation (E) is done with a point scale. The point scale ranges from a rating of 1 (very unattractive) to a rating of 5 (very attractive). The respective detailed information about the product markets is compiled by the product management. The weighted value is calculated by multiplying the weighting and evaluation (W × E). The total sum of the weighted values gives the total

Market attractiveness	Weighting (W)	Evaluation (E)	Weighted value (W x E)
Product market size	0.20	4	0.80
Growth rate in the product market	0.15	3	0.45
Competitive intensity in the product market	0.05	4	0.20
Position in the product life cycle	0.15	2	0.30
Price elasticity	0.05	4	0.20
Contribution margin level	0.20	5	1.00
Innovation rate	0.20	4	0.80
Total value market attractiveness	**1.00**		**3.75**

Fig. 29 Assessment of the market attractiveness of a product

Competitive position	Weighting (W)	Evaluation (E)	Weighted value (W x E)
Relative market share	0.20	5	1.00
Growth in market share	0.10	3	0.30
Brand image and awareness	0.15	5	0.75
Product advantage	0.05	3	0.15
Service advantage	0.15	4	0.60
Price position	0.20	2	0.40
Cost position	0.15	4	0.60
Total value competitive position	**1.00**		**3.80**

Fig. 30 Assessment of the competitive position of a product

value of market attractiveness and competitive position. The total scores for market attractiveness and competitive position are then entered into the portfolio model.

The presented assessment of market attractiveness and competitive position by means of utility analysis is very often used in practice, but it has the following disadvantages:

- The weighting factors, while attractive at first glance, have little relevance in practice and generally do not make a difference.
- The calculation model with weighting and evaluation leads to a false accuracy.
- There is a lot of "room for manoeuvre" in the assessment of the individual products by the product managers (for one product manager, a growth of 3% in the product market is a lot and therefore assigns a value of 5, for another product manager, a growth of 3% is very little and assigns a value of 2).
- A relative evaluation of the company's products or product groups among each other is difficult.

To avoid these disadvantages and thus create more practical relevance, you can use the evaluation model based on the morphological box. In this model, a grid is developed that is the same for all product managers and products (see Fig. 31).

With this fixed grid you can now evaluate the products and product groups in your company.

Example: Evaluation and calculation of market attractiveness for product 1

- Product 1 in this example has a market volume of EUR 24 million. It therefore falls into category 3 (EUR 20-30 million).
- Product 1 has a market growth of 5.2%. It therefore falls into category 4 (4–6%).
- Product 1 is in the growth phase of the product life cycle and therefore falls within category 4.
- The average profitability in product market 1 is 36%. Product 1 therefore falls into category 5.

Market attractiveness	Evaluation (1 ... low, 3 ... medium, 5 ... high)				
	1	2	3	4	5
Market volume	up to 10 m	10-20 m	20-30 m	30-40 m	above 40 m
Market growth	0%	0-2%	2-4%	4-6%	above 6%
Phase of life cycle	Degeneration	Saturation	Maturity	Growth	Introduction
Average profitability	up to 15%	15-20%	20-25%	25-30%	above 30%
Product 1:	(3 + 4 + 4 + 5) / 4 =				4.0
Product 2:	(5 + 2 + 2 + 3) / 4 =				3.0

Fig. 31 Evaluation of market attractiveness by means of a morphological box

The calculation is made by adding the evaluation categories (3 + 4 + 4 + 5 = 16) divided by the number of evaluation criteria (=4). The value for market attractiveness results in the number 4.
You can use the same scheme to evaluate your company's other products and product groups and also to assess its competitive position (see Fig. 32).

In some cases, even with this type of evaluation, it is necessary to resort to qualitative evaluation criteria (stronger, equal, weaker). If necessary, have the courage to fill in the gaps. However, the objective remains to objectify the evaluation by quantification, if possible.

The maximum values for market attractiveness and for competitive position are both 5.00, the minimum values are 1.00. As in the Boston Consulting portfolio, the circle size represents the company's own product revenue or the market size of the product.

The market attractiveness/competitive position portfolio is divided into nine fields, as shown in Fig. 33. The following generic strategies can also be assigned to these nine fields:

- **Selective expansion**
  - Specialization in a limited number of strengths
  - Search measures to overcome weaknesses
  - Withdrawal in the absence of sustainable growth
- **Expansion with investments**
  - Expansion to market leadership
  - Selectively use existing strengths
  - Strength weak points
- **Protect position**
  - Investment for maximum growth
  - Focus on maintaining strengths
- **Limited expansion/harvesting**

Competitive position	Evaluation (1 ... weak, 3 ... medium, 5 ... strong)				
	1	2	3	4	5
Relative market share	0-0.25	0.25-0.75	0.75-1.25	1.25-1.75	above 1.75
Relative marketing position	weaker		equal		stronger
Performance advantage	weaker		equal		stronger
Image/awareness	up to 30%	30-40%	40-60%	60-80%	above 80%

Product 1:	(3 + 3+ 4 + 4) / 4 =	3.5
Product 2:	(2 + 3 + 2 + 3) / 4 =	2.5

Fig. 32 Evaluation of the competitive position by means of a morphological box
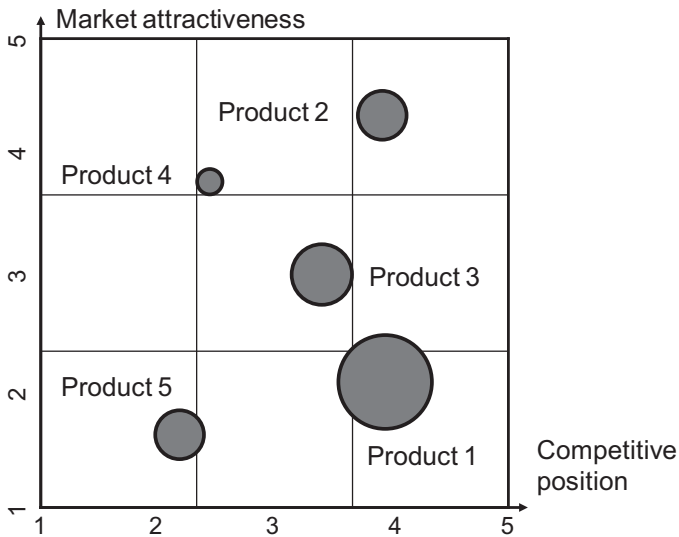
Fig. 33 Market attractiveness/competitive position portfolio

- Take advantage of opportunities for expansion without great risk
- Minimize investment and optimize cost reduction
- **Selective expansion/profit orientation**
  - Protect existing product
  - Concentration on segments with high profitability and low risk

- **Selective expansion**
  - Extensive investment in most attractive segments
  - Develop measures to defend against competition
  - Increase profitability through increased productivity
- **Divestment**
  - Sale at the best price (timing!)
  - Reduce fixed costs and avoid investments
- **Profit orientation**
  - Protect position in profitable segments
  - Optimization of products/product groups
  - Minimization of investment
- **Protect position/refocus**
  - Optimize current profit generation
  - Focus on attractive segments
  - Defend existing strengths

In Fig. 34, these generic strategies are assigned to the nine fields. They form the basis for your strategy development process.

The management (MD, CEO) or business unit management decides, ideally together with you, what should happen with the individual products or product groups. A strategy is developed for each product or product group and discussed in detail. With this portfolio approach, you should also compile a target portfolio in addition to the actual portfolio (see Fig. 35).

Agree together on the goals and strategies as well as on the level of the necessary resources. This prioritization, which is to be created together with product management,
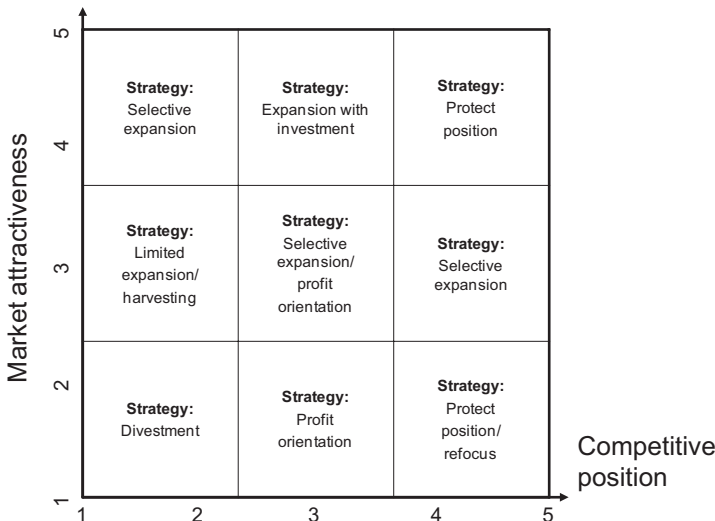

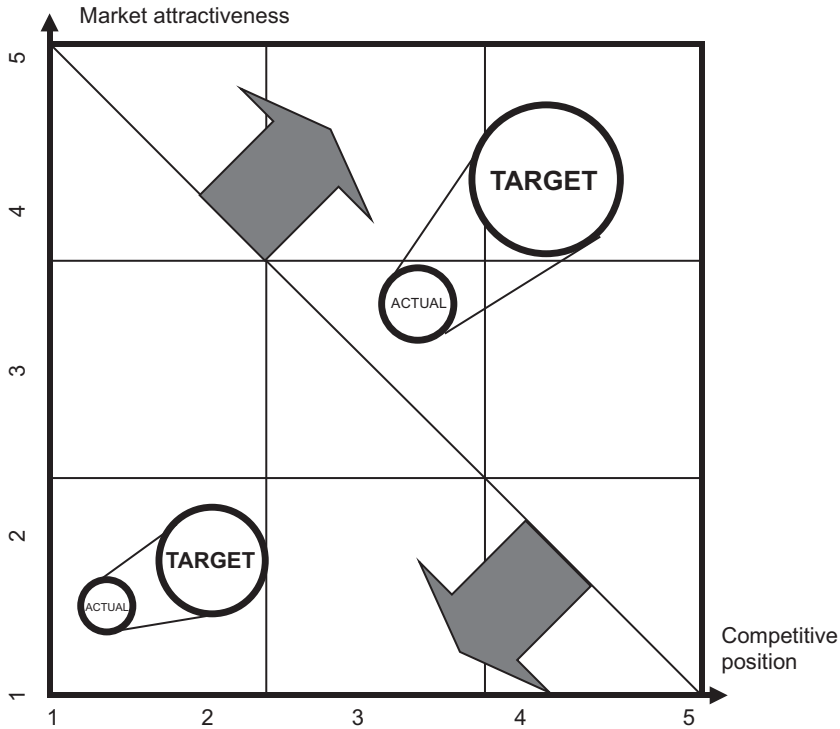**Fig. 34** Generic strategies in the multifactor portfolio model

Fig. 35 Actual portfolio and target portfolio

must logically also be taken into account in the functional areas. The following example from the IT industry shows how the company's management not only determines the product priorities by means of portfolio management, but also how these priorities are taken into account in product planning in sales.

Example: Ensuring product priorities in the functional areas

In a company from the IT sector, the product priorities are determined once a year in a portfolio management team. The portfolio management team consists of the CEO, the product managers, important functional managers and the strategic planning department. The company distributes products internationally through its own service and sales offices (subsidiaries) in the countries. In order to ensure that the product priorities are also adhered to in the subsidiaries, there is a precise specification by the management for each subsidiary as to what proportion of the total revenue of the subsitiary may be accounted for by the individual products.

Figure 36 shows this priority principle per subsidiary. The subsidiary plans a total revenue per country per year. This total revenue is then divided up by product.

The priorities of the twelve product groups of the company (P1 to P12) are determined individually for each subsidiary (S) of the company. Figure 36 shows the shares of product
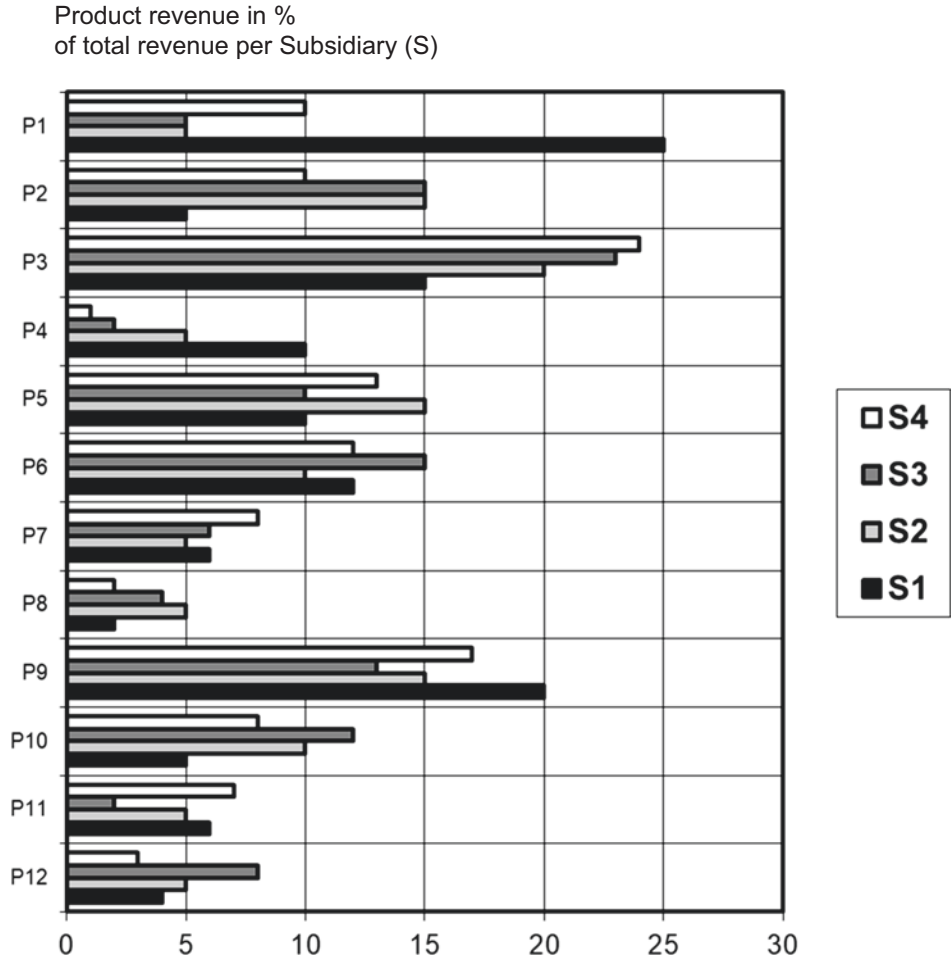
Product revenue in %
of total revenue per Subsidiary (S)

Fig. 36 Product priorities by revenue per subsidiary (excerpt)

revenue of the total revenue of a subsidiary (in this case, four subsidiaries are shown as examples). Subsidiary 1 has the target to make 25% of the total revenue of the subsidiary with the product group P1, subsidiary 4, however, only 10%.

However, don't stop at evaluating sales resources alone. Also look at development resources and analyze what percentage has gone to each product or product group so far. Does the resource allocation reflect the priority in the product portfolio?

Example: Misguided resource management

A company in the field of measurement technology had successfully introduced product portfolio management two years ago. The next step was to link portfolio management with the company's resource management. This revealed an extremely strong mismatch between product portfolio priorities and the allocation of development resources. Three products,

classified as star products, with a 28% share of revenue and an intended investment strategy received only a total of 6% of development resources in the past year. Since innovation rates in the market were very high in two of these three product areas, this should also be reflected in the type of development projects for these products. But here, too, the findings were sobering. Eight of the twelve development projects were projects to correct product errors, three were facelifts and relaunches, and only one was a genuine innovation project.

The review and optimization of resource allocation in the functional areas according to product portfolio priorities is of enormous importance for successful product management. Incorrect or missing resource management is often the reason for product launch flops and poor life cycle and portfolio management. Important areas to review for resource allocation are:

- Sales/key account management
- Marketing and communication
- Development and technology
- Services and support
- Production, warehouse and logistics

6.2   The Strategic Level

The decisions made at the dispositive level provide you, as the strategically responsible product manager, with the following guidelines for your further action:

- A basic strategy for your product.
- A target position in the product portfolio.
- A budgetary framework in line with the basic strategy.

Based on these specifications and guidelines, you analyze the product market according to market and competitive aspects, develop a multi-year strategy in detail and an annual plan for the product market. With these documents, especially the annual planning, you agree on personal goals within the framework of a goal agreement process with your superior. Figure 37 gives you an overview of these relationships.

6.2.1   Product Planning

The process of market-oriented product planning takes place once a year and is oriented to the overarching corporate planning in terms of time and process. As a product manager, you analyze your product market, compile a product strategy and, based on this, develop a corresponding product market plan (bottom-up) for your product or product group. You compare this planning with the corporate planning (top-down). Figures 38 and 39 show frequently used planning forms for annual planning in the context of product planning.

Your target planning on an annual basis should include the following numerical values:
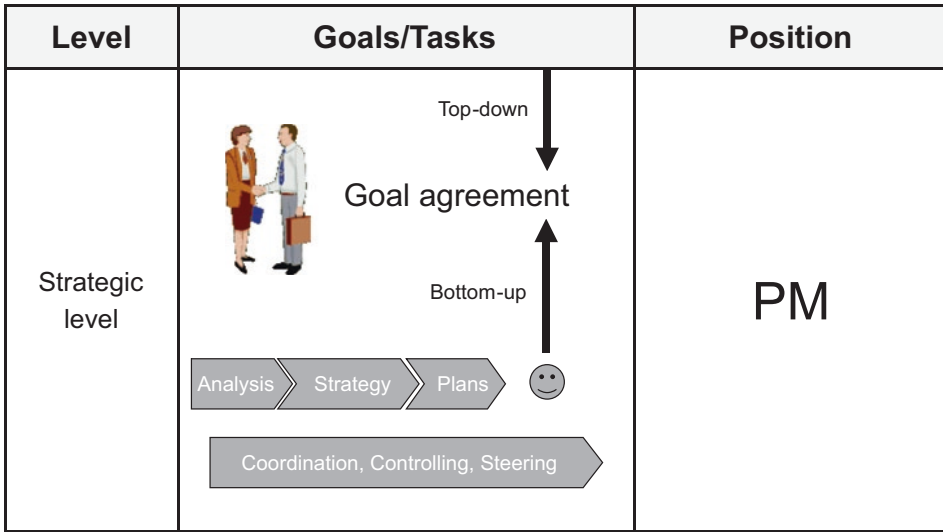
Fig. 37 The strategic level (overview)

Indicators	Product group total	Article group 1	Article group 2	Article group 3	Article group 4	Article group 5
Market volume						
Market share competitor 1 **Market share competitor 2** **Market share competitor 3**						
Own market share						
Annual market growth in %						
Own revenue growth in %						
1. Gross revenue						
2. Revenue reduction						
3. Net revenue						
4. Variable product costs						
5. Contribution margin I						
6. Fixed product costs						
7. Contribution margin II						

Fig. 38 Target planning within the framework of product planning (annual planning)

- Market figures (market volume, market share, new and replacement demand, sales share and sales volume …)
- Complete contribution margin accounting (revenue, deductions, variable and fixed product costs, contribution margin I and II …)

Indicators	T - 2	T - 1	T	T + 1	T + 2
1. Revenue total					
Product A					
Product B					
Product C					
Product D					
Product E					
2. Revenue reduction					
3. Discounts					
4. Special promotions					
5. Sales promotions					
6. Sales/marketing					
7. Contribution margin					

Fig. 39 Target plans (rolling planning)

These numerical values are not only compiled for the entire product group, but also broken down to individual articles or article groups. In addition to this product plan on an annual basis, which contains detailed values, you can integrate historical values and rough plans for the next two years into the planning form as part of rolling planning.

Rolling planning is often used to monitor the progress of objectives over several years. On the one hand, rolling planning takes into account the fact that it is becoming increasingly difficult to make reliable statements and thus plans about events in the future. On the other hand, certain decisions cannot be postponed entirely. The problem of uncertainty about the future is dealt with in rolling planning by drawing up a detailed plan only for the first period, while only a rough plan is drawn up for the more distant future. In particular, financial and liquidity planning at the corporate level requires this longer-term perspective in order to be able to ensure the availability of financial resources at an early stage.

After the detailed planning period has expired, the rough plan is then extended by one period and a new detailed plan is created for the following period. This results in the rolling planning picture shown in Fig. 40.

By integrating historical values into product planning, you can easily create life cycle curves and contribution margin curves for your product (see Fig. 41). The analysis of the life cycle progression and the determination of individual phases of the product life cycle provide you with additional valuable information for operational action planning.

Detailed planning of product-related variable and fixed costs is also part of your product planning. A special problem arises when breaking down product-related costs into fixed and variable components. The breakdown of costs into fixed and variable components takes place in the accounting department of your company. The following criteria should be applied:

Planning period / Plan preparation in year	T+1	T+2	T+3	T+4	T+5	T+6
T	**Detailed plan T+1**	Rough plan T+2	Rough plan T+3			
T+1		**Detailed plan T+2**	Rough plan T+3 (revised)	Rough plan T+4		
T+2			**Detailed plan T+3**	Rough plan T+4 (revised)	Rough plan T+5	
T+3				**Detailed plan T+4**	Rough plan T+5 (revised)	Rough plan T+6

Fig. 40   Basic principle of rolling planning
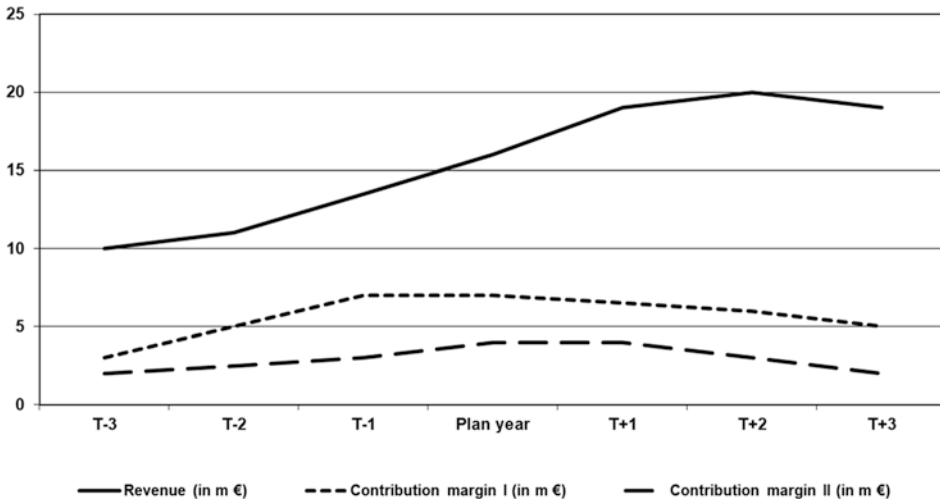
Fig. 41   Representation of a progression curve

Variable costs

are defined as proportional costs, i.e. they change with "employment". In simpler terms, this means: "If no products are produced/sold, no variable costs are incurred."

Examples of variable costs are:

- Cost of materials
- Shipping costs
- Energy costs
- Packaging costs
- Field sales commission
- Order processing costs
- etc.

Fixed costs
  by definition do not change when "employment" varies (exception: Jump-fixed costs …).

Examples of fixed costs are:

- Product advertising
- Sales promotion
- Patent costs
- Tooling costs
- Costs of production plant
- Depreciation
- etc.

In the case of fixed costs, a further distinction can be made between:

- Fixed product costs,
- Product group fixed costs,
- Business unit fixed costs and
- Company fixed costs.

For product planning, you only need to consider product and product group fixed costs. The business unit and company fixed costs are more likely to be taken into account in corporate planning. They cannot be influenced by you as the product manager and are therefore not suitable for target planning at product management level.

Taking into account the variable costs and the different fixed costs, you can set up the following contribution margin scheme:

Example: Contribution margin model for product planning

Gross revenue
- Deductions (rebates, discounts …)
_____
Net revenue
======================================
Variable costs
- Cost of materials
- Packaging costs
- Shipping costs
- Sales force commission
- etc.
_____
Contribution margin I
======================================
Fixed costs
- Depreciation and amortization
- Product advertising
- Sales promotion
- Service costs
- etc.
_____
Contribution margin II
======================================

This contribution margin model can be easily integrated into your planning forms (see Fig. 42).

Particularly important when drawing up product plans is the planning of measures for the product or product group (see Fig. 43). In addition to the concrete budgeting of the measures, you must also list the detailed implementation measures. These subsequently

Articles/ Article groups	Contribution margin I			Fixed costs					Contribution margin II		
	T	T + 1	Variance (%)	Service	Sales	Advertising	Other costs	Total	T	T + 1	Variance (%)
A											
B											
C											
D											
E											
F											

Fig. 42 Planning of product-related fixed costs

No.	Measure	Timing	Responsibility	Budget	To coordinate with	Remarks
1.						
2.						
3.						
4.						
5.						
6.						
7.						
8.						
9.						
10.						
11.						
Total budget						

Fig. 43 Action planning within the framework of product planning (annual planning)

form the basis for the goal agreement with the functional areas, which play a central role in the implementation/execution process.

6.2.2   The Agreement on Goals

As part of the goal agreement process, individual goal agreement meetings are held with you as the product manager on the basis of the product plans. For this purpose, the plans of the individual product managers are compared with the product portfolio and corporate planning at the corporate or business unit level (dispositive level).

As a product manager, you prepare your individual planning for the goal agreement meetings. For this purpose, you prepare product presentations, which not only contain the product planning, but also the corresponding product market analysis and the product strategy. These documents are important because product planning is based on them. Above all, it serves to ensure the comprehensibility of your product planning. Product planning must have a reasonable product strategy at its basis, and the product strategy itself must be based on the necessary product and market analysis. Make sure that the logic in the presentation is clearly recognizable. For the management, the comprehensibility and plausibility of your presentation is of particular priority.

A company from the consumer electronics industry requires a presentation with the following content from the product management for the annual planning and goal agreement.

Example: Structure of a product presentation (excerpt)

- Description of product/product group
- Product market description/demarcation

- – Total market
- – Market segmentation

- • Analysis of the product market

- – Product benefit analysis
- – Product market and sales figures
- – Analysis of strengths and weaknesses
- – Analysis of trends and developments
- – Opportunity-threat profile
- – Market segment portfolios
- – etc.

- • Competitor analysis

- – Structure and market position of competitors
- – Basic strategies of competitors
- – Product analysis of the competitor products
- – Product benefits in comparison with competitors
- – etc.

- • Product strategy (five-year period)

- – Strategic goals
- – Basic strategies
- – Marketing mix strategies
- – Alternative strategies and evaluation
- – Strategy simulation (quantification)
- – etc.

- • Product planning

- – Target planning and rolling planning
- – Action planning and timing
- – Budget and contribution margin planning
- – Cost planning
- – Planning of the product life cycle
- – etc.

- • Management summary

This presentation ensures that management is not only confronted with a plan, but also receives the necessary analysis and strategies that form the basis for the plan.

The subsequent goal agreement discussions in the companies usually take place according to the respective management systems. Table 1 shows a goal agreement system of a company. It also shows the proportion with which the individual sub-goals are included in the assessment of the overall goal achievement and the variable salary component based on this.

Note that both product-related and company-related targets are integrated into the goal agreement process. The respective shares of the goals in percent can be adjusted annually by the company's management depending on the focus. In recent years, this company has

Table 1 Goal agreement system in product management

Goal content	Goal definition	Share (%)
Growth/profit targets of the company	Evaluation of corporate income statement at the end of the financial year	30
Cost optimisation targets	Actual/target cost accounting system	10
Product strategy and planning targets	Revenue, and contribution margin figures from controlling	30
New product targets	Roadmap (innovation management)	20
Deadline targets	Roadmap (innovation management)	10

placed a very high percentage on cost optimization goals. In the new goal agreement systems, the focus is on product strategy and planning goals (revenue).

6.2.3 Strategic Conflicts

A common problem at this level are strategic conflicts between you in product management and the other levels (dispositive and operational levels). Detailed strategic decisions for your product are claimed by both the management (MD, CEO)/business unit management and the operative functions (functional departments).

In most cases, this "distribution" of strategic decisions regarding the product leads to the fact that no coordinated product strategy comes about and the strategic thrust in the product strategy is sometimes completely lost. It is not uncommon to find that almost all product strategy decisions are no longer made in product management, but are distributed across the functional departments. In a financial services company, for example, strategic topics are divided among functions as listed in Table 2.

Although product management tries to coordinate and align the different strategies, the autonomy of the functional departments prevents the compilation of a meaningful product strategy. To overcome this problem, you should ensure that the product strategy decisions are made by you as the product manager. Of course, the functional areas are still involved in strategy development. A cross-functional product team, in which all relevant functional areas are integrated, can bring in the interests of the functional areas. The following practical example shows a blatant case of different priorities.

> **Example: Strategic conflicts in product management**
>
> A company from the consumer goods industry had introduced product management and already achieved good experience and success in a short time. After several restructurings and personnel changes in the management and the functional departments, the competencies were also reorganized. The new management strongly influenced the development of the product strategy in detail (e.g. market segment strategies, product development strategies, relaunches, etc.), and the functional departments also selectively took decisions away from product management. For example, pricing strategy decisions were assigned to sales. Product management increasingly took on the role of balancing the different strategic interests; a clear product strategy could no longer be found. Operationally short-term oriented actions were in the foreground. The company lost 50% market share in one product area.

Table 2 Distribution of product strategy decisions (excerpt)

Functional area	Product strategy decision
Marketing	Market segment strategy
	Communication strategy
	Brand strategy
Sales	Pricing strategy
	Sales promotion strategy
	Distribution strategy
IT	Product strategy
	Product life cycle strategy
	Assortment strategy
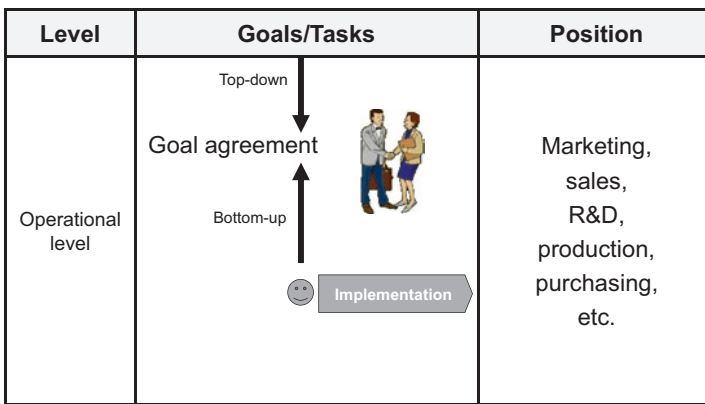
Fig. 44 The operational level (overview)

6.3   The Operational Level

The operational level is dedicated to practical implementation and execution. At this level the implementation measures defined in the strategic level are implemented by the functional areas. For this purpose, you assign the measures defined in the strategic level with the necessary budgets and deadlines to the functional areas through goal agreements. Figure 44 provides an overview of these relationships.

This assignment of implementation measures with corresponding goal agreement takes place either directly with you as product manager or via the management level (e.g. business unit management). The goal agreement at this level is critical for your success. Often, companies agree on objectives with product management, but the operational level continues to pursue objectives that do not support the product strategy and product planning or even have a counterproductive effect. Whether the goal agreement with the functional areas is made directly with product management or via the management (MD, CEO) or business unit management depends to a large extent on the management and goal agreement system in the company. Both approaches can be found in practice and work well.

If the product-related goal agreements are missing on the functional level, the implementation of the measures and the achievement of the product targets are usually not ensured. Another important basis for goal agreement is product-related planning. In this planning, the sub-goals are represented and can be assigned to the functions. Despite the existence of operational measure planning and operational annual planning for the product targets, as a product manager you are confronted with conflicting targets.

Example: Conflicts of objectives with the operational level

A company in the consumer goods industry had introduced product management about a year ago. The organization and the processes for it were developed. Likewise, the goal agreement system with product management was established with the management. A goal agreement system with the functional areas was not created. This led to some conflicts of objectives and interests in the further course. The functional areas (marketing, sales, etc.) developed their own focal points, strategies and measures from a functional perspective. Sales, for example, introduced key account management during the same period. Sales resources were concentrated on the key accounts (A customers), while B and C customers were increasingly serviced via call centers and direct marketing. This led to considerable unrest in one product area in particular, as at the same time the product manager wanted to introduce a customer loyalty program with significantly different objectives (market segmentation). The market segmentation on which the customer loyalty program was based also led to problems with the marketing department, which had developed an undifferentiated communication concept for the market as a whole.

The clear coordination of objectives and measures within the framework of planning and implementation is central to your success in the product area. Figure 45 illustrates the steering/coordination and controlling function of the product manager.

The functional areas represent the rowers. As a product manager, you are the helmsman. Unfortunately, this interaction very rarely works in practice. You are more likely to find the situation shown in Fig. 46.

Fig. 45 Steering function of the product manager

Fig. 46 The product manager as rower

Fig. 47 Typical situation of a product manager

This division into oarsman and coxswain is to be seen symbolically in this context and is in no way to be understood as a valuation of the functional areas or product management. Only a well-rehearsed team is capable of winning the race. The same principles of team orientation are also to be applied in product management.

Also, many product managers, especially when it comes to implementation, find themselves in the situation shown in Fig. 47.[2]

In the end, no one wants to be responsible for implementing and bearing the responsibility for implementation. Many of these conflicts can only be partially resolved with appropriate conflict management. In some cases, recourse to the hierarchy is necessary. However, in order to be successful, the support of the management (MD, CEO) and the business unit management is required. In practice, there are always clear differences in the performance of product management when upper management has a clear idea of product management compared to companies that have not yet developed a clear picture. The following text also fits in with the typical situation of a product manager described above.

---

[2] Despite intensive research, I have not been able to identify the source of this graphic. If you know the illustrator, please let me know.

Example: Typical situation of a product manager

This is a story about four people named Everybody, Somebody, Anybody and Nobody. There was an important job to be done and Everybody was asked to do it. Everybody was sure Somebody would do it. Anybody could have done it but Nobody did it. Somebody got angry about that because it was Everybody's job. Everybody thought Anybody could do it but Nobody realized that Everybody wouldn't do it. It ended up that Everybody blamed Somebody when Nobody did what Everybody could have done.

According to knowledge of the situation in practice, the operative goal agreement with the functional areas can be regarded as an essential criterion for success in product management.

7   A Complex Project: How to Introduce Product Management in the Company

If you want to introduce a functioning and successful product management in your company, some essential framework conditions should be checked. However, the question remains open as to when product management makes sense in your company. The answer to three questions is helpful here:

- **Question 1: The question of specialisation**
- Can our company's products or product groups be better promoted through specialized product-related programs?
- **Question 2: The question of capacity**
- Does the number of products or product groups exceed the capacity of a functional-oriented organization?
- **Question 3: The question of resources**
- Are the human resources that have been used for "product management" up to now (in some companies product management is done in personnel union with the management or business unit management) sufficient for a successful product management or is it better to employ own product managers who can fully concentrate on this task?

If you can answer one or even several questions with "yes", you should consider the introduction of a product management.

Example: Introduction of product management

The product management of a manufacturer of consumer electronics was previously carried out in personal union with the business unit managers of the company. In annual planning meetings with the management, the product focus, product strategies and sales figures were defined in the form of an annual plan. The strong growth of the company in recent years required more and more attention with regard to corporate and business unit development, so that product management was pushed more and more into the background. Planning meetings were used primarily for corporate planning, leaving product-related interests to sales. A

slump in revenue in some product areas led to a rethink by the management. A separate product management was introduced in order to focus more attention on the products again.

7.1   Advantages and Disadvantages of Product Management

When introducing product management, you should also determine the advantages and disadvantages of product management specifically for your company. This will enable you to identify implementation barriers at an early stage and deal with them using suitable measures. The following list provides you with corresponding information on the advantages and disadvantages of product management.

Advantages of Product Management
- Centralised planning and implementation responsibility means that the decisions made can be implemented in the best possible way.
- Problems with the marketing of the products are largely avoided, as all measures and activities are coordinated and agreed upon by the product manager beforehand.
- In the event of changes in the market and among competitors, it is possible to react more quickly, since all information is collected and evaluated in product management, thus ensuring rapid decision-making.
- The marketing tools used are constantly reviewed by the product manager, and thus the effectiveness can be assessed relatively quickly.
- Product managers know the market and the needs of the customers very well and can therefore check whether and how all measures will be received by the respective target groups before they are implemented.
- The complexity of corporate strategy and planning decreases as product management already develops detailed product-related strategies and plans.

As a result of an explorative survey of companies in German-speaking countries conducted by MSG Management Systems St. Gallen, the main advantages of product management listed in Fig. 48 were mentioned.

End-to-end strategy and planning, closely followed by management relief, form the key benefits of product management from a business perspective.

When introducing product management, you should also consider the possible disadvantages of product management. They give you hints for implementation barriers to be considered and central conflict points.

Disadvantages of Product Management
- The uniformity of the marketing concept of the entire company can be impaired if the responsibility is distributed among several product managers (e.g. in brand management).
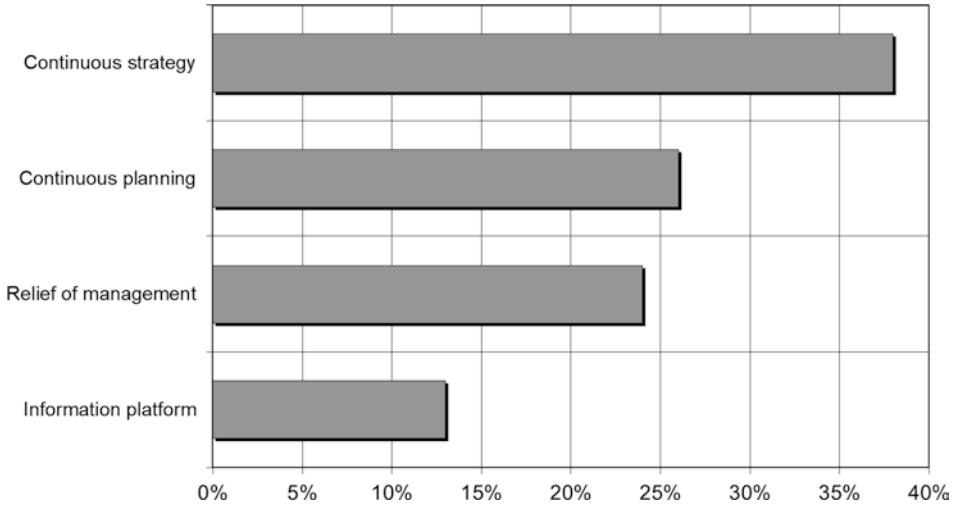
Fig. 48 Advantages of product management

- The variety of tasks and the high demands on the product manager make it difficult to find suitable personnel for the position of product manager.
- A high turnover of product managers can lead to the continuity of product strategy and product planning being jeopardized.
- The drive for success and performance of individual product managers can degenerate and lead to conflicts (e.g. resource conflicts) within the organization.
- The functional areas of the company are overloaded by the many product-specific requirements.
- The development and implementation of functional concepts (e.g. marketing concept, development concept, etc.) is made more difficult.

As a result of an explorative survey of companies in German-speaking countries conducted by MSG Management Systems St. Gallen, the main disadvantages of product management listed in Fig. 49 were mentioned.

The unclear positioning of product management in the own company and organizational problems are of central importance.

7.2   Success Factors for Implementation and Introduction

The introduction of product management in one's own company presents many companies with a major challenge. Product management requires a rethinking of the previous working methods, processes and organizational regulations. Failure in the introduction of product management is mostly due to the following reasons:
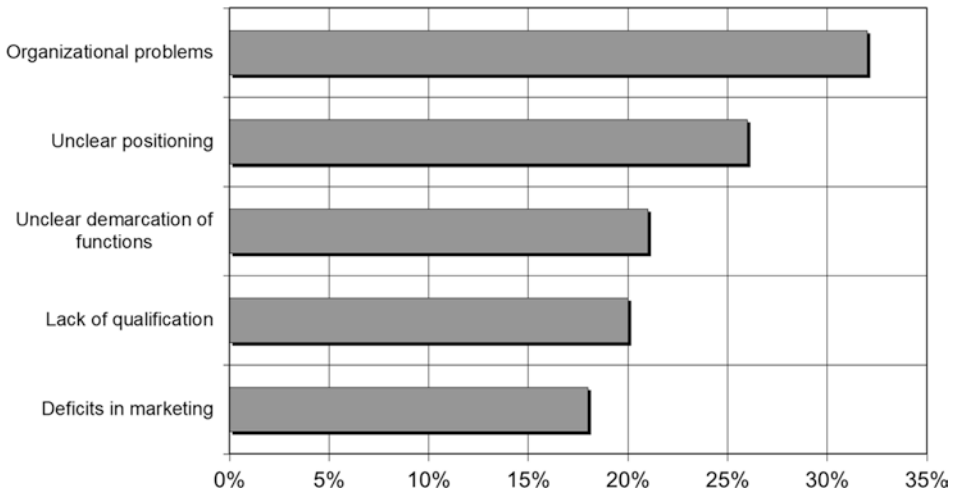
Fig. 49 Disadvantages of product management

- Objectives and positioning of product management are unclear.
- The information and integration of the functional areas is missing.
- There is a lack of support from senior management (e.g. MD, CEO …).
- The staffing of product management positions is unqualified.
- There is too much focus on day-to-day business (short-term thinking).
- The interface definition and division of tasks are missing.
- Cross-functional influence is poor.
- The organizational assignment is incorrect.

When deciding on product management and introducing product management in your own company, you should therefore create the following prerequisites:

- Anchor product market orientation as a corporate philosophy.
- Adjust the overall structure and all relevant elements of the organization.
- Clearly define the positioning of product management in the company.
- Delimit the interfaces to the functional areas.
- Integrate product management into key processes (planning processes, strategy processes, product portfolio management …).
- Define responsibilities, tasks and competencies.
- Build a development and training program for product managers.
- Adapt the information, planning and controlling systems.
- Ensure that top management provides sufficient support and plays a coaching role for product management.
- Inform internal departments comprehensively about product management.
- Build a goal setting and performance appraisal system for product management.
- Provide product managers with specific tools and instruments for product marketing.

The successful introduction of product management thus encompasses the entire company and is usually a longer process. The involvement and support of top management, not only in the introduction phase, is a prerequisite for success. Introduction and conversion processes must be specifically adapted to the company's own situation.

When introducing product management in a company, for example, the procedure shown in Table 3 can be chosen.

The development of a product management concept in stage 2 has proven to be particularly useful and helpful. In the product management concept, product management is defined specifically for one's own company. The concept, also called product management positioning paper, forms the basis for all communication and implementation measures within one's own company.

Example: Questions that companies ask themselves when developing a product management concept

Table 3 Procedure for the introduction of product management

Stage 1	Engage management
Targets:	Developing need, motivation and understanding for changeover
	Achieve a common understanding of product management
Measures:	Give concrete examples
	Analyze best practice companies
	Present current problems
	Represent competitors' product management, etc.
Stage 2	Develop a concept
Targets:	Develop a vision and concept for your own product management
Measures:	Analysis of the product structure
	Develop organisational proposals
	Develop job description and requirements profile
	Define interfaces
	Develop process proposals, etc.
Level 3	Prepare the implementation
Targets:	Establish internal communication and project structure for implementation
Measures:	Conduct kick-off workshops
	Develop project planning
	Build information platforms
	Hold information meetings, etc.
Level 4	Make changes
Targets:	Implementation of the planned changes in the company
Measures:	Change structures and processes
	Recruit product managers
	Conduct product manager training
	Adapt and change systems
	Use task forces to troubleshoot problems
	Conduct interface workshops with the functions, etc.

- What are the main reasons for the introduction of product management (market reasons, competitive reasons, internal company reasons)?
- What goals do we want to achieve with product management in our company?
- How should product management be positioned in the company (strategically or operationally)?
- According to which basic principles should our product management function (cross-functional coordination, the product manager as product market expert, etc.)?
- What product-related goals do we want to measure product managers against (qualitatively and quantitatively)?
- What are the roles, tasks and responsibilities of a product manager in our company?
- What is the job description and requirement profile of our product managers?
- How are the interfaces to the functional departments of the company delimited?
- In which processes must the product manager be integrated and which product-specific processes (e.g. product planning processes) must be developed and introduced?
- How do we ensure product-specific controlling and reporting?
- How is the product manager integrated into the company's organizational structure?
- What information does the product manager need from the functional areas and what does he or she have to deliver?
- What regularly scheduled meetings and discussions must the product manager attend?
- What tools and instruments does the product manager need to be able to do his job?
- Who in the company provides the coaching function for product management?
- Who is the sponsor for the introduction of product management in our company?
- How do we deal with conflicts of resources and interests?
- With which intermediate stages (in terms of time and content) do we want to introduce product management?
- What do the recruitment and training of product managers look like?
- How do we gain the support of the functional areas for product management?
- How are the products or product groups formed for product management?

When assigning product managers to products or product groups as part of the introduction of product management, you must ensure that products or product groups with homogeneous success factors are grouped together. It must also be ensured that the products/product groups are not in competition with each other (strategic autonomy) and that a sufficiently large product market (potential for sole viability) is covered. Unfortunately, there is no patent recipe for allocation here.

7.3   Recruitment of Product Managers

The recruitment of product managers in practice is rather difficult. Companies usually do not have a clear idea of the positioning, tasks and responsibilities of product management. Although one instinctively knows that product management is necessary, the necessary preliminary considerations are not made. In addition to clarifying the positioning, a task description and a requirements profile of the product manager are minimum prerequisites. For both internal and external recruitment of product managers, they form the basis for a corresponding internal or for an external job advertisement.

The following examples show different job advertisements from companies looking for product managers.

Example: Job advertisement for a junior product manager

Our client is a leading international provider of state-of-the-art business solutions and IT services.
For the product area paper and consumables, we are looking for a

Junior Product Manager.

You will carry out sales promotion activities, negotiate and plan the purchasing and calculate prices. If you have a commercial education and have several years of experience in product marketing, please apply under: XYZ

This job posting is properly tailored for a junior product manager. A junior product manager is operationaly active in the company and is not a strategically oriented product management position. The tasks and the requirement profile (although a bit tightly worded here) correspond to the position.

Example: Job advertisement for a product manager

We are looking for people who want to develop.

Product Manager Voice

The "Voice Business" team sees itself as the engine of the company
and sets new standards on the market.
We are strengthening our team and are looking for a marketing professional with high technical affinity (mobile communication technology).
You will design new products and work closely together with technology and IT as well as with marketing communications for product marketing.
You will find a broad, independent scope of work that requires project management skills, creativity and market knowledge. As a product manager, you will be responsible for the design, implementation and marketing of new services and work closely with all relevant specialists in-house. Strong communication skills, persuasiveness, customer orientation and the ability to work in a team are important characteristics in this function. We are looking for individuals with a degree in business administration (university/technical college) and additional technical training, high technical affinity as well as one to three years of relevant professional experience and enthusiasm for working in a team.

Here, the company is looking for a product manager, a strategically oriented management position. Independent work with great creative freedom is required. Cross-functional coordination and control are also the key to success here.

Example: Job advertisement for a "product manager" in sales

As an incoming tour operator with regional offices, we handle all segments of tourism for our customers. The basis of our company are employees who are motivated, independent and team-oriented and who look after the interests and wishes of our customers.
If this description fits you, we would like to welcome you as a new employee.
We are looking for a

Product Manager
(Germany/Switzerland/Austria)
Your tasks:
Acquisition of new customers
Support of existing customers/segments
Product development
Personal requirements:
Minimum age 25 years
Marketing and economic understanding
Good command of English
Creativity and willingness to perform
As a product manager, you are a member of the management team
and directly responsible for the success of your area.

This job advertisement is not looking for a product manager, but more likely for a country manager with sales tasks. The tasks of acquiring new customers and supporting existing customers and segments are definitely not tasks of a product manager.

A particularly interesting job profile for a product manager can be found in the job advertisement of a company from the diagnostics and medical technology sector.

Example: Job advertisement for a multifunctional "product manager"

Product Manager
Instrumental Analytics
Our client is a successful company in the fields of animal nutrition, veterinary medicine and diagnostics and is looking for a success-oriented sales personality for the independent development of the department "Instrumental Analytics".
Your tasks:
Technical product management
Sales of automated analytics
Acquisition and support of key accounts
Product training and installation
Commissioning and basic service of instruments
Your qualifications:
Entrepreneurial, commercially experienced personality with leadership potential
Education:
Medical technology, electronics,
electrical engineering or mechatronics
Sales experience with analytic devices in the food sector
Strong communication and negotiation skills
High level of commitment and mobility
Good English and excellent PC skills

Here, a product manager is sought who simultaneously does sales, takes care of key account management and carries out the complete operational implementation. Interested people who want to switch to product management should therefore find out exactly about the position in advance. Sometimes what's in it isn't what's on it!

Many product managers only look after their products or product groups for a relatively short time. On average, product managers stay in the position for three years.

After that, they are usually promoted, change companies or take on other tasks. Most product managers therefore see their position as a kind of intermediate step. This stepping stone thinking also brings with it the danger that short-term actions dominate in product marketing and long-term orientation is neglected. Product managers need one to two years alone to get to know the company with its structures and processes, to build up reliable relationship networks, to master the product market and to fully develop their capabilities. You must therefore try to retain your product managers over the long term with creative concepts. Money and career must be right, but they are not the primary motivating factors.

Most important to product managers are:

- greater responsibility (tasks),
- more extensive competences and
- greater acceptance.

In the future, successful product management will not only depend on the training, special knowledge and skills of the product managers, but to a particular extent on the balancing of the task load, the creation of competencies and responsibilities and the acceptance of product management in the company.

8   A Major Challenge: The Organizational Integration of Product Management

The organizational anchoring of product management in the company's organizational structure presents many companies with a major challenge. Many factors play a role in daily practice. The hierarchical position of a person in the company is still a critical factor. From a product management perspective, you also need to consider relevant points here. In this context, the hierarchical position of the product manager essentially depends on the operational or strategic orientation of product management.

When determining the organizational anchoring of product management in your company, you should consider three basic principles:

- **Basic principle 1: Strategic responsibility**
- Assign strategically responsible product managers directly to the management (MD, CEO) or business unit management (for companies with business units).
- **Basic principle 2: Management span**

- If the number of product managers makes the management span too large, insert a head of product management in between.
- **Basic principle 3: Operational responsibility**
- Organize operationally responsible product managers hierarchically into the functional areas. Operationally active product managers with a focus on marketing and sales should be integrated into the marketing or sales department. Operationally positioned product managers with a technical focus should be integrated into technical departments like R&D, application engineering, etc.

These basic principles are illustrated in practical terms below.

8.1   Organization in Strategic Product Management

In the following organizational forms, the product manager is positioned in the company as the strategically responsible product manager. The product manager as the holder of a management function in the company should be positioned directly below the management (MD, CEO) or the business unit management (basic principle 1). Product management is thus placed at the same hierarchical level as functional management. Figures 50 and 51 show the basic scheme of this organizational form.

With a small number of product managers, the management span is not overstretched with these organizational forms. However, if the number of product managers exceeds the

Abbreviations:
MD … Managing director
BU … Business unit
PM … Product manager
M … Marketing
A … Advertising
SP … Sales promotion
F/E … Fairs/exhibitions
MR … Market research
S … Sales
RM1 … Regional management 1
RM2 … Regional management 2
KAM … Key account management
SA … Sales assistant
R&D … Research & development
IT … Information technology
CU … Central unit
P … Production
SR … Sales representative

Fig. 50   Integration below management (schematic diagram)
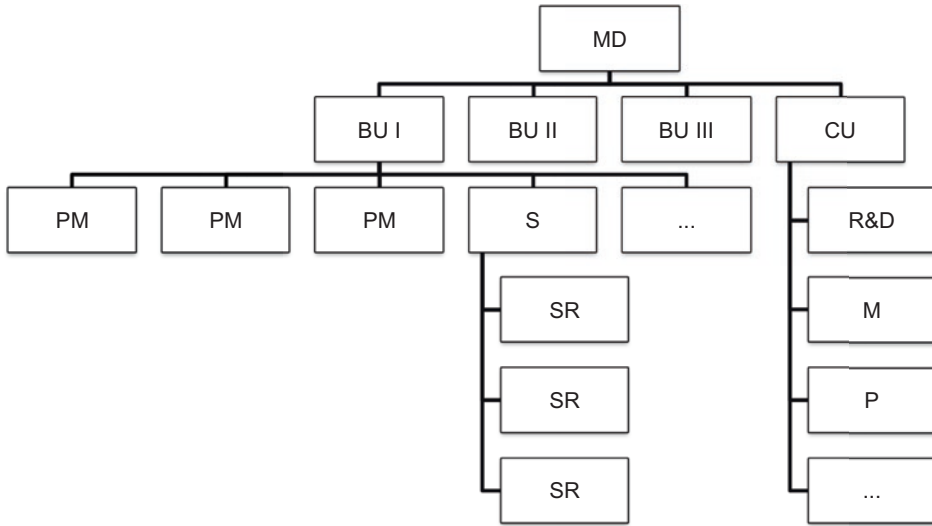
Fig. 51 Integration below business unit management (schematic diagram)

managerial span of the supervisor, you should interpose a head of product management (Basic principle 2, see Fig. 52). The head of product management (HPM) has personnel responsibility for the assigned product managers.

This basic scheme of product management organization for strategically responsible product management will now be illustrated by practical examples. Figure 53 shows the organization of product management in a company from the financial services industry.

In this example, product management is located directly under the management of the retail customer business unit. Likewise, a head of product management is interposed to reduce the management span.

Another example from industrial electronics shows a similar structure (see Fig. 54).

In the organizational forms presented so far, product managers have no personnel responsibility. The resources required for product management are provided by the functional areas. In some cases, product management also has its own resources and thus personnel responsibility. Figure 55 shows an organizational chart for this purpose.

Marketing functions are often shifted to product management. Increasing organizational shifting of functions to product management creates a divisional organization (product division). Examples of functions that are shifted to product management are:

- Sales functions (product-related sales)
- Development functions (product-related development)
- Marketing functions (product-related marketing)
- Service functions (product-related service)
- etc.
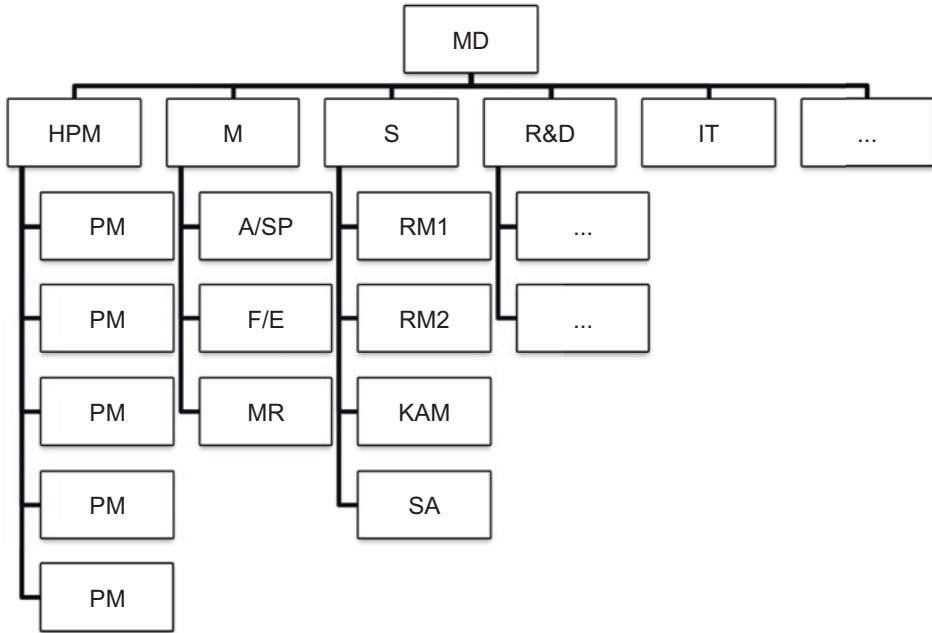
Fig. 52 Organization with head of product management (schematic diagram)
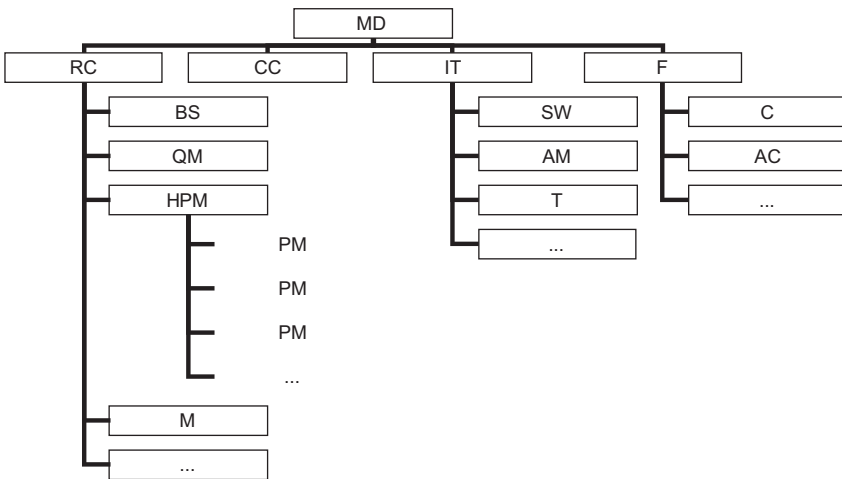
Abbreviations:

RC … Retail customers   C … Controlling
CC … Corporate customers   AC … Accounting
IT …Information technology   BS … Business service
SW … Software   QM … Quality management
AM … Application management   HPM … Head product management
T … Technology   PM … Product manager
F … Finance   M … Marketing

Fig. 53 Organization of product management in financial services
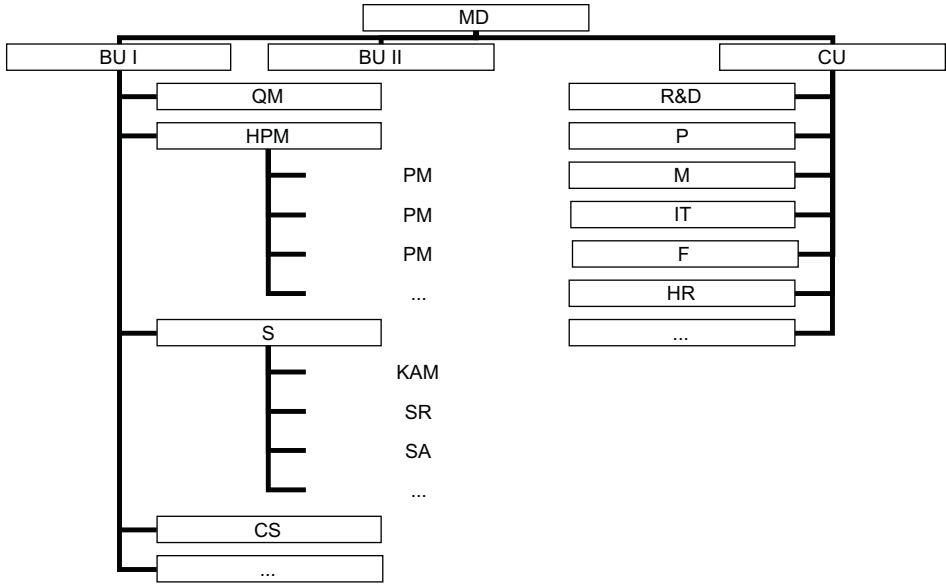
Fig. 54 Organization of product management in industrial electronics

Abbreviations:
BU … Business unit
CU … Central unit
QM … Quality management
HPM … Head product management
PM … Product manager
KAM … Key account management
S … Sales
CS … Customer support
R&D … Research & development
P … Production
M … Marketing
IT … Information technology
F … Finance
HR … Human resources
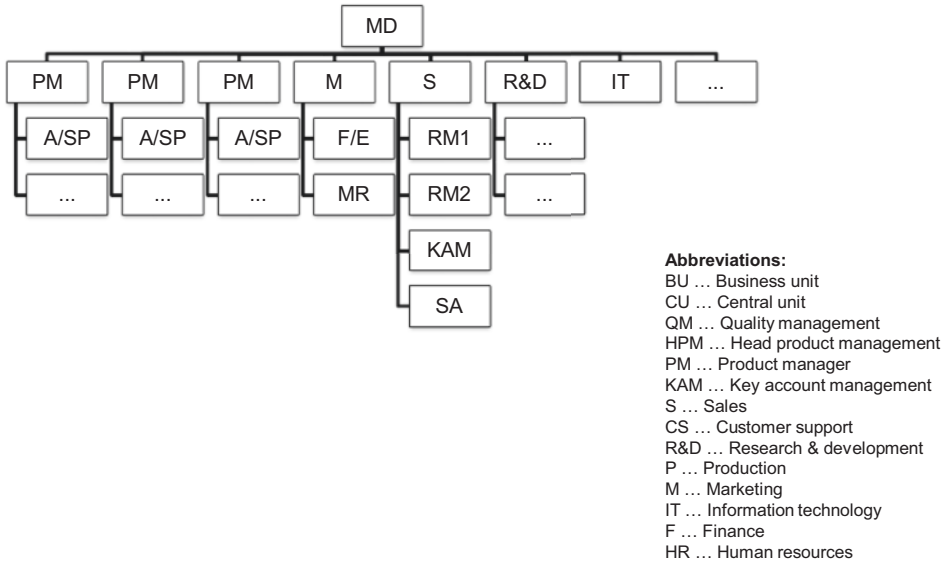
Fig. 55 Product management and divisional organization (schematic diagram)

8.2   Organization in Operational Product Management

In operationally oriented product management, the product manager is not strategically responsible. Although he has operational implementation responsibility with the corresponding operational objectives, he does not represent a management position in the company. Depending on the operational orientation, the product manager has a functional focus in marketing and/or sales or in technical functions. You should therefore not assign the operationally active product manager directly to the management (MD, CEO) or the business unit management, but one level lower into the functional areas (basic principle 3).

8.2.1   Assignment to Marketing/Sales Functions

If the product manager is assigned to a marketing or sales function, the activities in these areas are also oriented as operational, product-related implementation support. Figure 56 shows the organizational assignment of a product manager with a functional focus on marketing.

In this role, the product manager coordinates product-related operative marketing activities. You can also find the integration of the operationally active product manager into the sales function in practice (see Fig. 57).

Fig. 56 Integration of product management in marketing (schematic diagram)
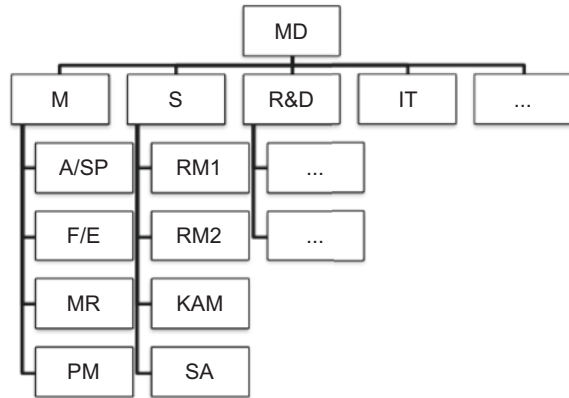
Fig. 57 Integration of product management in sales (schematic diagram)
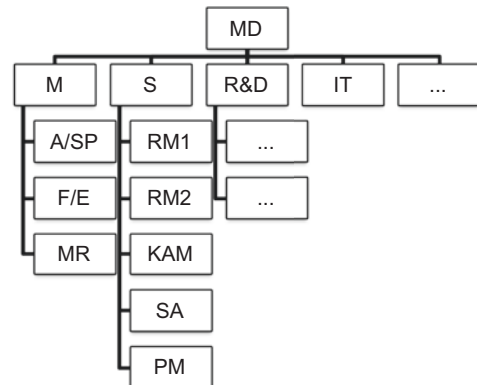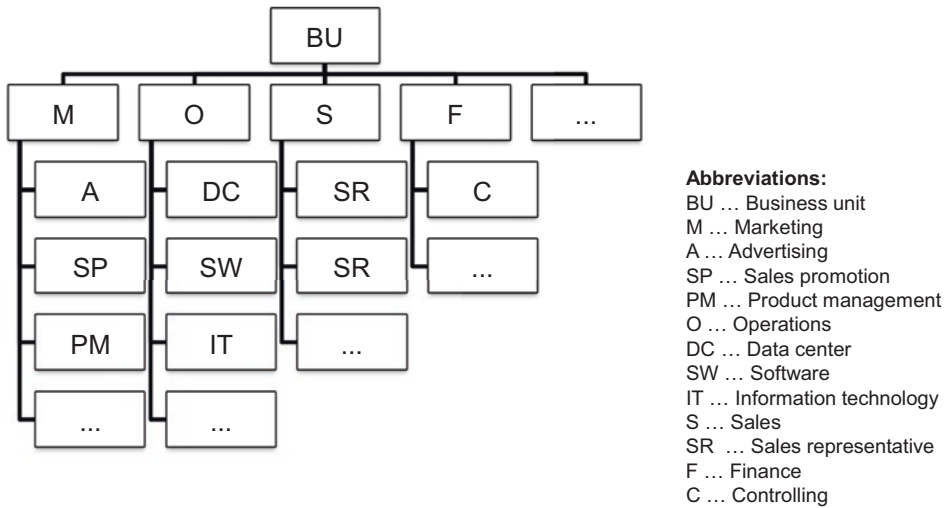
Fig. 58 Organization of product management in the information services industry

In this organizational assignment, the product manager takes over operational activities in sales (e.g. implementation of sales-supporting measures).

This basic scheme of a product management organization for an operationally oriented product management in marketing or is shown in the practical example in Fig. 58.

8.2.2   Assignment to Technical Functions

If the product manager is assigned to a technical (or technological) function, the activities in these areas are also geared towards providing operational, product-related implementation support.

Technical functions can be:

- Research and development (R&D)
- Application technology/management
- Technology management
- Warehouse/logistics/purchasing
- Production
- Quality management
- etc.

Figure 59 shows the organizational assignment of a product manager with a functional focus in development.

In this role, the product manager coordinates product-related operational development activities.

The organizational chart shows a hierarchy:

- **MD** at the top
- Below MD: **M**, **S**, **R&D**, **P**, **...**
- Under **M**: A/SP, F/E, MR
- Under **S**: RM1, RM2, KAM, ...
- Under **R&D**: D, AE, PM, ...

Abbreviations:
MD … Managing director
PM … Product manager
M … Marketing
A … Advertising
SP … Sales promotion
F/E … Fairs/exhibitions
MR … Market research
S … Sales
RM1 … Regional management 1
RM2 … Regional management 2
KAM … Key account management
R&D … Research & development
D … Development
AE … Application engineering
P … Production

Fig. 59 Integration of product management in development (schematic diagram)

This basic scheme of product management organization for an operationally oriented product management with technical functions is shown in the example in Fig. 60 from the construction supply industry.

In individual cases, it can happen that strategically responsible product managers are organizationally integrated into the functional areas. In this case, tensions arise in the company due to the organization, since the superior is now the one with whom implementation-related goal agreements are to be made, and at the same time the product manager negotiates own strategic objectives with this person due to the strategic responsibility of the product manager.

Example: Organizational conflicts and tensions

Due to restructuring measures in a company with a simultaneous change of the business unit management, the product managers previously located under the business unit management of the company were relocated to the marketing department. The established strategic processes and also the strategic responsibility of the product managers remained as before. Within the framework of the annual strategy and planning rounds with subsequent goal agreement, the problem caused by this clearly emerged. The product managers developed their product-related strategies and plans. The company's marketing manager claimed the right to review and, if necessary, modify these strategies and plans. Goal setting was also supposed to
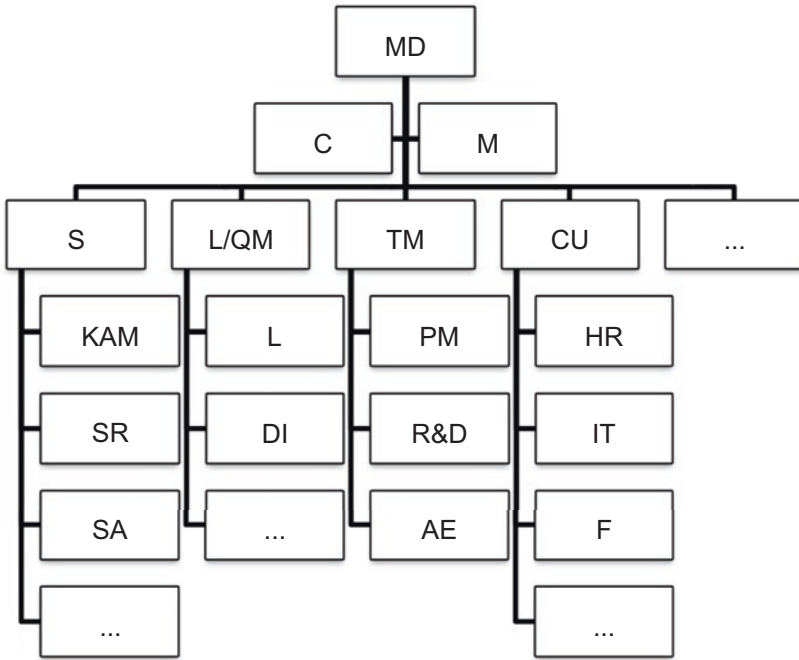
Abbreviations:

MD … Managing director	DI … Disposition
C … Controlling	TM… Technology management
M … Marketing	PM … Product management
S … Sales	R&D … Research & development
KAM … Key account management	AE … Application engineering
SR … Sales representative	CU … Central unit
SA … Sales assistant	HR … Human resources
QM … Quality management	IT … Information technology
L … Logistics	F … Finance

Fig. 60   Organization of product management in the construction industry

be done through the marketing manager. The product managers, in turn, tried to get the target setting for the implementation measures from the marketing department. In this chaos of responsibilities, there were considerable disputes and conflicts. In this case, however, the product management succeeded in achieving the original assignment to the business unit management through consistent persuasion.

Practically, you can only solve such conflicts if product management is organizationally separated from the function and assigned to the management (MD, CEO) or business unit management (basic principle 1).

8.3   Special Forms of Organization in Product Management

Special forms of organization in product management include:

- Product management as a staff organization
- Product management in personnel union with other functions

Both forms of organisation are rather rare, as they have not become established in practice for various reasons.

In Fig. 61, product management is assigned to the management as a staff function.

Other options for the assignment as as a staff function are:

- Business unit management
- Marketing
- Sales
- Development/technology
- Production
- etc.

Companies often choose this form of organization to test the product management before the actual introduction. Unfortunately, the test results are usually unsatisfactory, since product management with this form of organization has a hard time establishing itself in the company.

The following reasons against staff organization are frequently cited:

- Lack of acceptance of staff functions in the organization
- The role of staff units is associated with decision preparation
- Lack of reference to practical business
- No responsibilities and influence

Fig. 61 Product management as a staff function (schematic diagram)
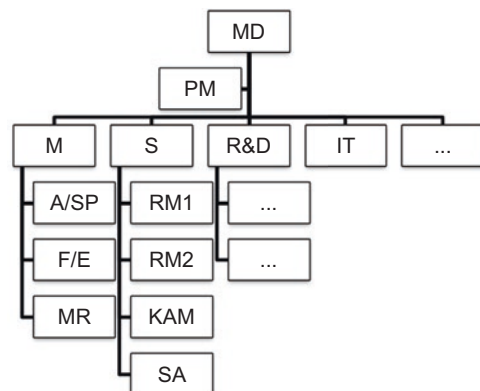
Fig. 62 Organization of product management in personnel union (schematic diagram)
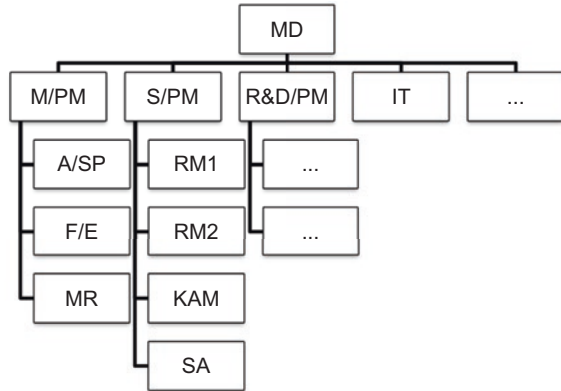
In the organization shown in Fig. 62, attempts are made (mostly for cost reasons) to establish product management in personnel union with a wide variety of functions. However, the results with this form of organization from practice are rather disappointing.

The following reasons speak against the personal union as a form of organization:

- Resource conflicts arise with the existing function.
- There is no identification with the product.
- The necessary cross-functional coordination does not take place.
- A product market specialist knowledge is not built up.
- The own function gets priority.

If you are faced with the task of reorganizing existing product management or have accepted the challenge of introducing product management from scratch, the following tips will be useful:

- Involve top management (MD, CEO, business unit management …).
- Clarify the business goals for product management.
- Develop alternative organisational models and evaluate the advantages and disadvantages. Carry out the comparison with the existing organisation (if any).
- Don't jump in with the door! Take a step-by-step approach to organizational development: First analysis, then concept design with verification, and then concept presentation with decision to implement.
- Inform employees and managers about the decision and present the procedure in the implementation phase.
- Identify winners and losers of the planned organizational change and talk through the challenge and consequences with those affected.
- Turn those affected into participants.
- Work as part of a cross-functional team.
- If in doubt, plan the implementation of the new organization by increments.

- Take resistance seriously and involve "recalcitrant" individuals and departments.
- If necessary, make use of external support (consultants).
- Take your time! Organizational change is a delicate matter.

9   Often Neglected: The Definition of Strategic Responsibility in the Company

The previous explanations on the topic of strategic responsibility have referred to the two forms of product management. The strategically responsible product manager and the operationally oriented product manager were in the foreground of the considerations. This undoubtedly important entrepreneurial decision on product management is increasingly being taken up and implemented by companies. However, when introducing product management and also when defining the interfaces in the company, you need to think through the principle of strategic responsibility more comprehensively.

Alternatively, you can still take on strategic responsibility within the company with the focus on

- market management or
- regional management.

Your decision on where to assign strategic responsibility is central to your company and touches on the question of what form product management should be positioned in your company in the first place. The basic forms of organization and the definition of strategic responsibility form the basis for answering this question.

9.1   Basic Forms of Organization

The basic layout of the organization form the basis for determining strategic responsibility. Basically, you can structure your company according to four basic forms:

- Function-oriented
- Product-oriented
- Market-oriented
- Regionally oriented

We will now discuss these basic forms in detail. The dominant issue here is how the first level below management (MD, CEO) or business unit management is structured.

9.1.1   The Function-Oriented Organization

In this form of organization, the first level below management is structured according to functions. Functional areas form the central orientation in the company. There is no product, market or regional orientation in the organizational structure (see Fig. 63).

This form of organization is practically no longer found today. Almost every company is either product, market or regionally oriented. The strategic responsibility in companies with a functional organization lies with the management (MD, CEO).

9.1.2   The Product-Oriented Organization

The product-oriented organization is identical to the form of strategically responsible product management described in the previous section. Product management (PM) is attached to the first level below management (MD, CEO) or business unit management. The functional areas are still present in this organizational form, but the strategic responsibility here lies with product management. For the sake of completeness, the basic scheme of this organizational form is shown again in Fig. 64.
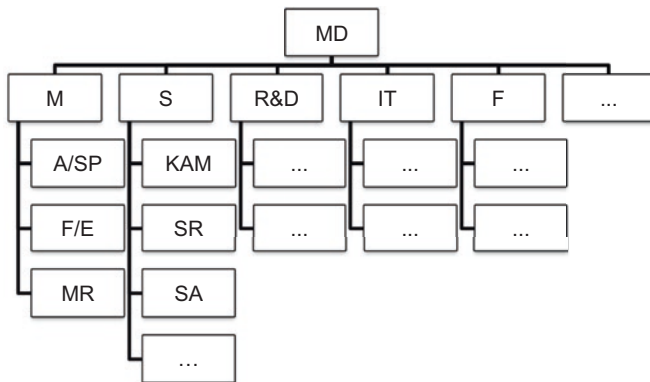
Fig. 63 Function-oriented organization (schematic diagram)
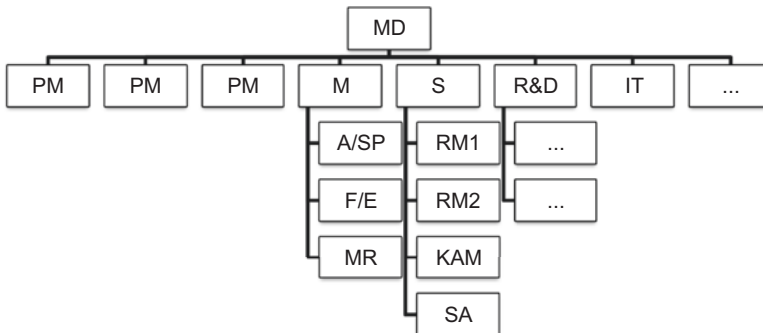
Fig. 64 Product-oriented organization (schematic diagram)

A product-oriented organization implies:

The strategic responsibility lies with the product management!

9.1.3   The Market-Oriented Organization

In the market-oriented organization, market managers (MM) are attached under the management (MD, CEO) or business unit management (see Fig. 65).

Market managers are persons who are responsible for markets or market segments. There are various designations for market managers in companies.

Commonly used terms for market managers are:

- Industry manager
- Target group manager
- Market segment manager
- Customer group manager

Market managers are not product managers! A market manager is a management position that is strategically responsible for a market segment or an industry, but acts across products. In market management, the different markets and not the different products are therefore the organizational reference value.

In Fig. 65, you see that companies can have a product management at the same time (in this case anchored within the marketing department, i.e. operationally active).

The practical example of market management in Fig. 66 shows the organizational form of a company from the cleaning sector for business customers. This company offers a wide variety of products, which are also managed by product managers.

The company has focused its market management on the following submarkets (industries):

Fig. 65 Market-oriented organization (schematic diagram)

Abbreviations:
MD … Managing director
MM … Market management
M … Marketing
A … Advertising
SP … Sales promotion
E/F… Fairs/exhibitions
MR … Market research
S … Sales
KAM … Key account management
SR … Sales representative
R&D … Research & development
AE … Application engineering
PM … Product management
IT … Information technology
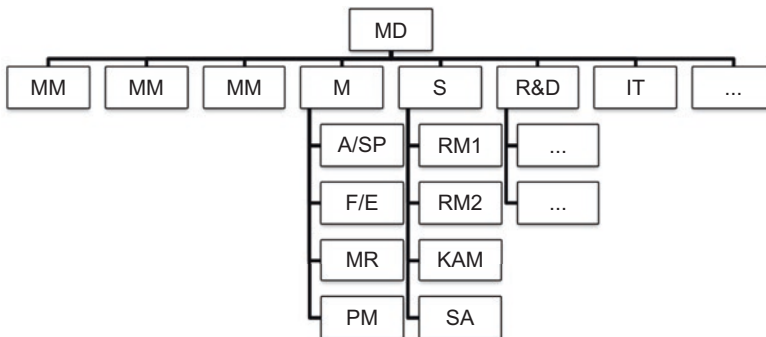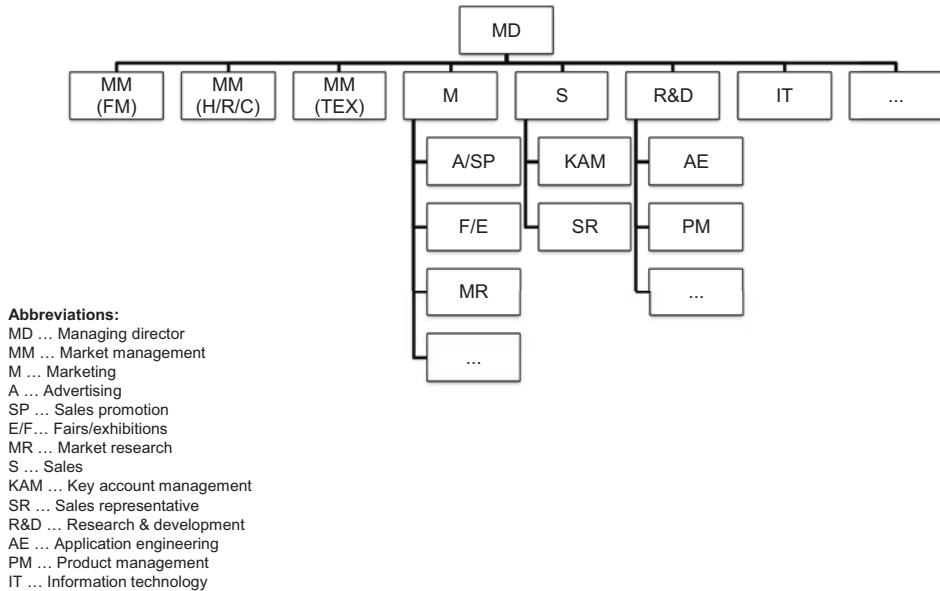
Fig. 66 Market-oriented organization of a company

- Facility management companies (FM)
- Hotel, restaurants and catering businesses (H/R/C)
- Textile cleaning companies (TEX)
- Hospitals/clinics/nursing homes …
- Public organizations
- Industrial companies
- etc.

The products were grouped according to the following categories:

- Basic cleaner
  - Glass cleaner
  - Floor cleaner
  - Textile cleaner
  - etc.
- Special cleaner (according to applications)
  - Application 1
  - Application 2
  - etc.
- Basic cleaning equipment
- Special cleaning equipment
- etc.

The market managers are responsible across all products for revenue and contribution margins in the assigned industry. Product management, which is integrated here in development, is operationally active in implementation.

A market-oriented organization implies:

The strategic responsibility lies with the market management!

A comparison of the product-oriented organization and the market-oriented organization in Table 4 shows the different focal points.

9.1.4   The Regionally Oriented Organization

The regionally oriented organization places priority and thus strategic responsibility on regional structures (see Fig. 67). Companies map these regional structures differently.

Here are some ways to delineate regional structures:

Table 4 Product-oriented versus market-oriented organization

	Product management	Market management
Targets	Optimization of product success in the overall market	Optimization of success in the market segment across products
Main focus	Product focus Total market coverage with the possibility of market segment-specific differentiation Development of a product strategy and product plans Special product know-how	Market focus Focus on one market segment, but offer and market the entire product range if possible Development of a market strategy/plan for all products Special market know-how
Risks	Adherence to the existing offer	Escalation of product differentiation
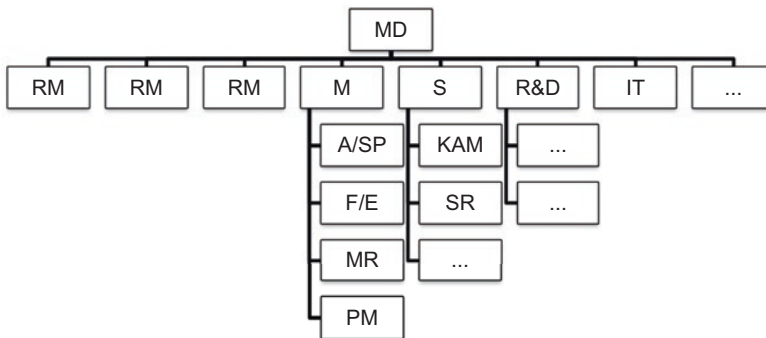
Fig. 67 Regionally oriented organization (schematic diagram)

- by country
- by continents
- by economic region
- by federal state
- etc.

For each regional organizational unit, there is, for example, a country/regional manager who is strategically responsible for his country/region across products and markets. Here, too, it is possible that there is also a product management, but that is positioned operationally in the company and therefore carries out operational tasks and activities.

Due to the strategic responsibility of the regional management (RM), this area is also attached directly below the management (MD, CEO) or business unit management. The operationally active product managers are assigned to the marketing department in this case.

A regionally oriented organization implies:

The strategic responsibility lies with the regional management!

The regional manager analyzes the regional market (across products and markets), develops a regional strategy (setting different product and market segment priorities) and develops annual plans for implementation. The product management supports the regional manager operationally in the planning as well as in the implementation phase.

9.2   Definition of Strategic Responsibility

As you have now seen by way of examples, it is possible to define strategic responsibility not only in product management. It is equally possible to use market or regional management for this purpose. The entire process takes place within these three dimensions (product, market and region). The definition of strategic responsibility must also be defined within this model (see Fig. 68).

You can also map the functional organization here. A functional structure makes sense if the company only has

- one product in
- one market in
- one region.

You will practically no longer encounter this type of situation in practice. Depicted in the three-dimensional matrix, the situation of such a company would look as shown in Fig. 69.

A practical example of such an undertaking would be:
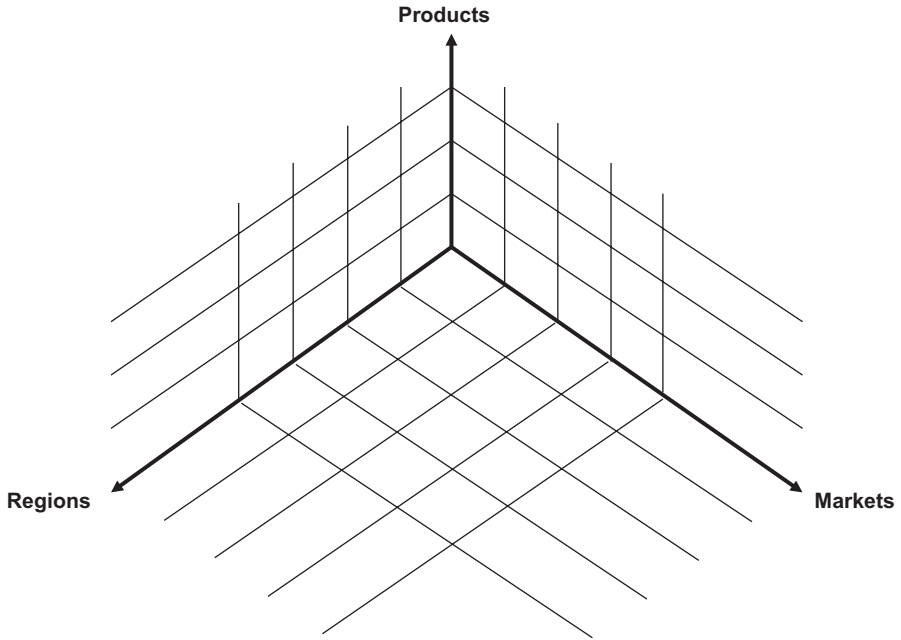
Fig. 68 The three dimensions of market activity
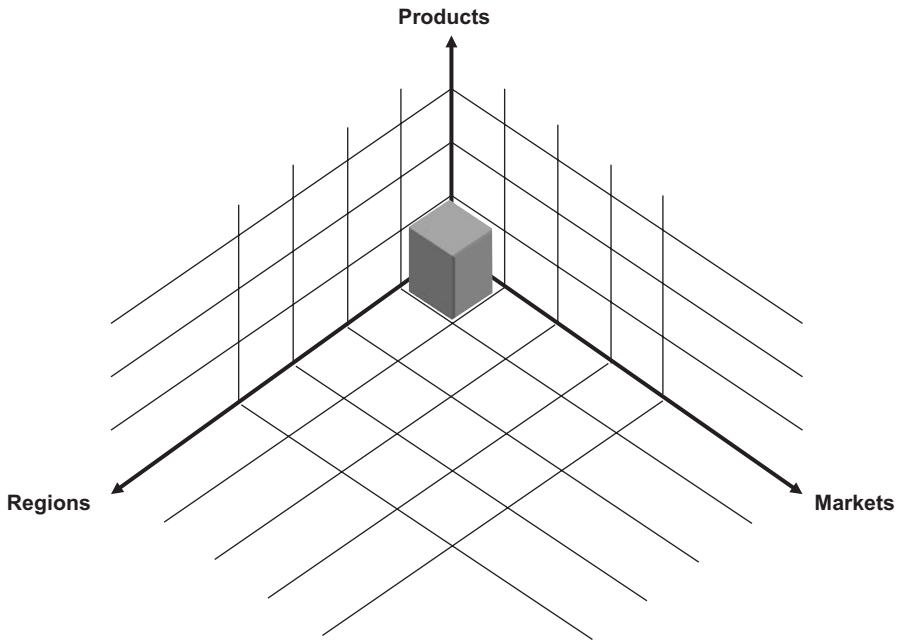
Fig. 69 Dimensions of market activity with a functional structure

- Voltmeters (one product/one product group) for
- Electricians (a submarket/segment of the market) in
- Germany (one region/one area).

For such a company you do not need a product management, a market management or a regional management. A functional organization would be completely sufficient in this case.

9.2.1   Alternatives to Strategic Responsibility

For the definition of strategic responsibility, the three dimensions (product, market and region) remain.

The first rule of strategic responsibility is:

> Where the strategic responsibility is assigned, the strategy development and planning process takes place!

If strategic responsibility lies with product management, product or product group-related strategies and plans are developed for the overall market. You as product manager are responsible for this process and for the results achieved in the process!

An industrial enterprise that produces tank systems in one product area, has an industry sementation, and also has a country structure, the three-dimensional structure would look as shown in Fig. 70.

If you now anchor strategic responsibility in product management, this results in three management levels by product (see Fig. 71).

If you place the strategic responsibility in the market management, strategies and plans related to market segments are developed across products (i.e. across all products) (see Fig. 72). The market manager is responsible for this process and the results achieved!
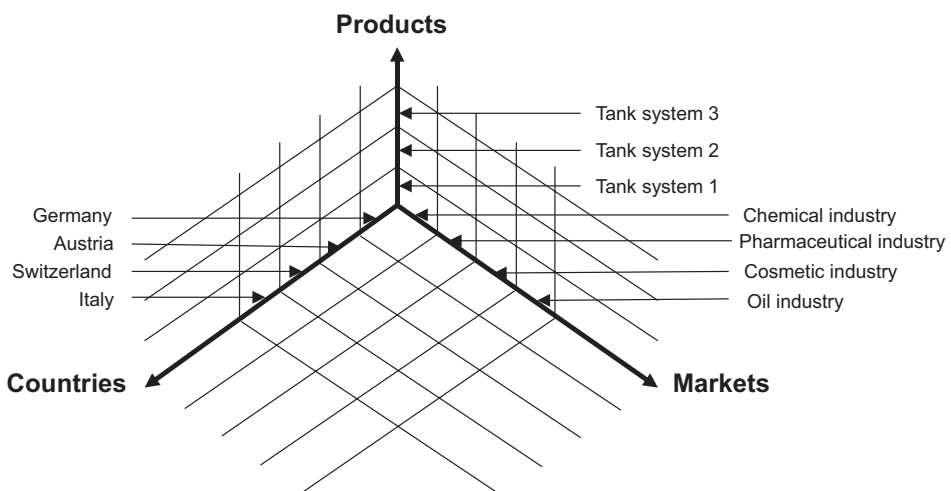
Fig. 70 Three-dimensional structure of a company
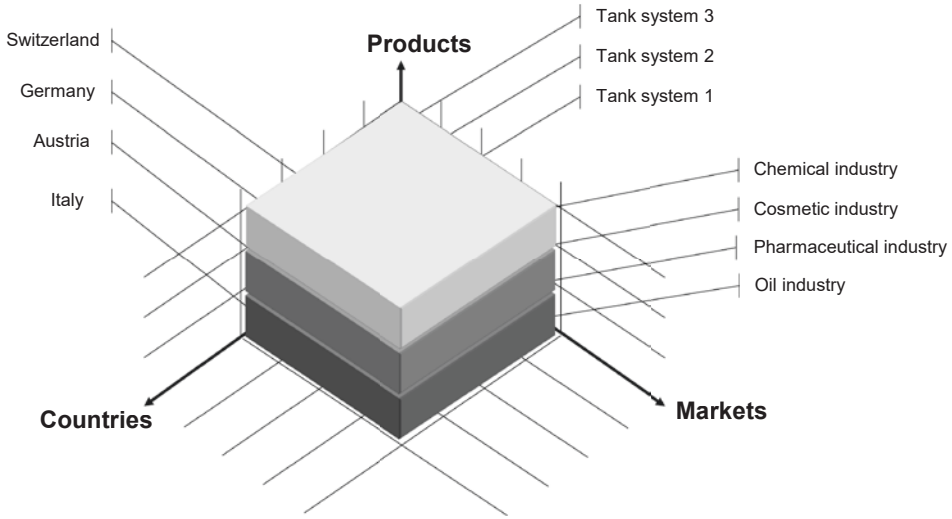
Fig. 71 Strategic responsibility in product management
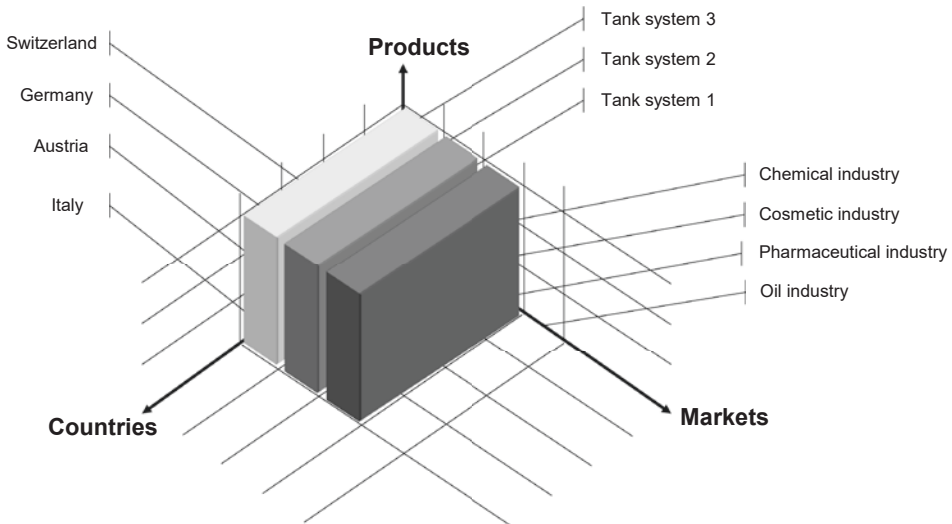
Fig. 72 Strategic responsibility in market management

The management levels that arise here are aligned by industry. The market managers are strategically responsible in this case.

In this context, the strategic responsibility of the product manager in relation to a key account manager needs to be clarified. Key accounts or key customers of a company are essentially nothing more than market managers focused on an individual customer. For the selection of key customers, the individual markets or industries of a company are usually
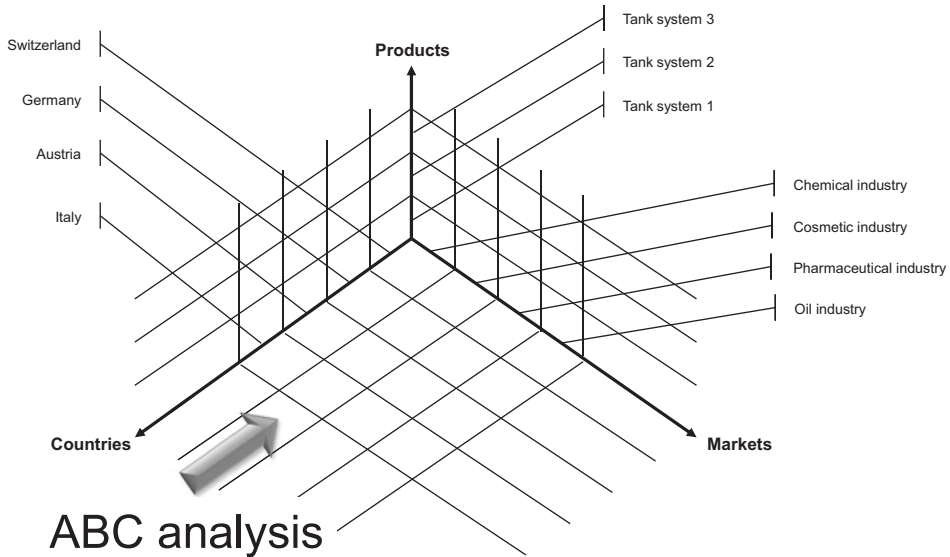
Fig. 73 Selection of key accounts (key customers)

examined by means of ABC analysis and thus – combined with additional selection criteria and the application of scoring models – the relevant key accounts for the company are determined (see Fig. 73).

The defined key accounts are assigned to the key account management (KAM) for support. The strategic responsibility for these key accounts clearly lies with the key account manager. Here, as a product manager, you are always in an operational implementation function. The key account manager analyzes the customer (key account), develops a customer-specific strategy and derives the implementation plans. Particularly in key account management, the key account manager is also required to make customer-specific product adjustments. This is where project management comes into play. For example, the key account manager makes the decision to develop a customized product, and the product manager implements this product development operationally. The strategic responsibility of the key account manager extends not only across the product areas, but also across the country organizations (see Fig. 74).

However, the strategic responsibility of the key account manager in this form only applies if the company has introduced "real" key account management. If key account management is merely a coordination function (frequent designations for this are key account sales, key account coordinator, etc.), the individual key account manager has no strategic responsibility and the above principles cannot be applied or do not apply.

If you place the strategic responsibility in the regional management, country-specific (or based on other regional criteria) strategies and plans are developed across products and markets (see Fig. 75). The regional manager is responsible for this process and the results achieved!
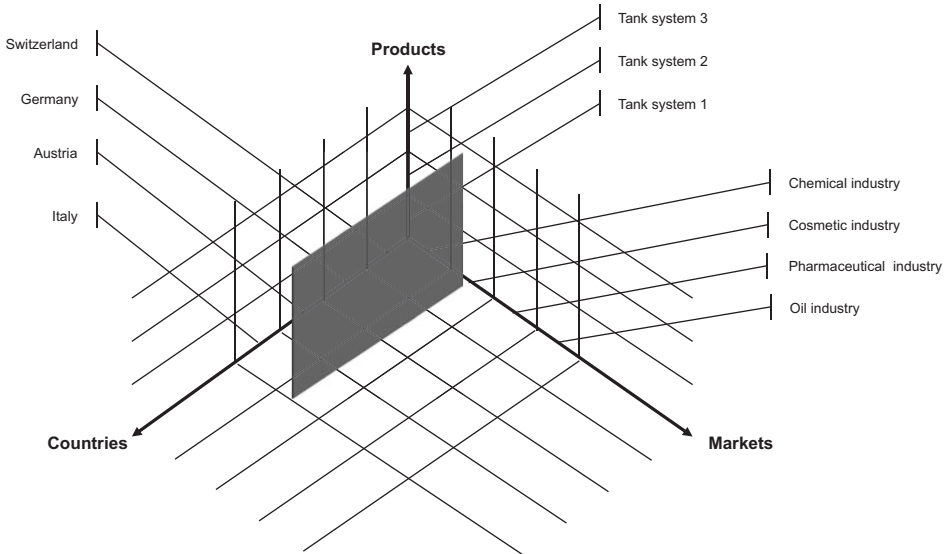
Fig. 74 Strategic responsibility of the key account manager
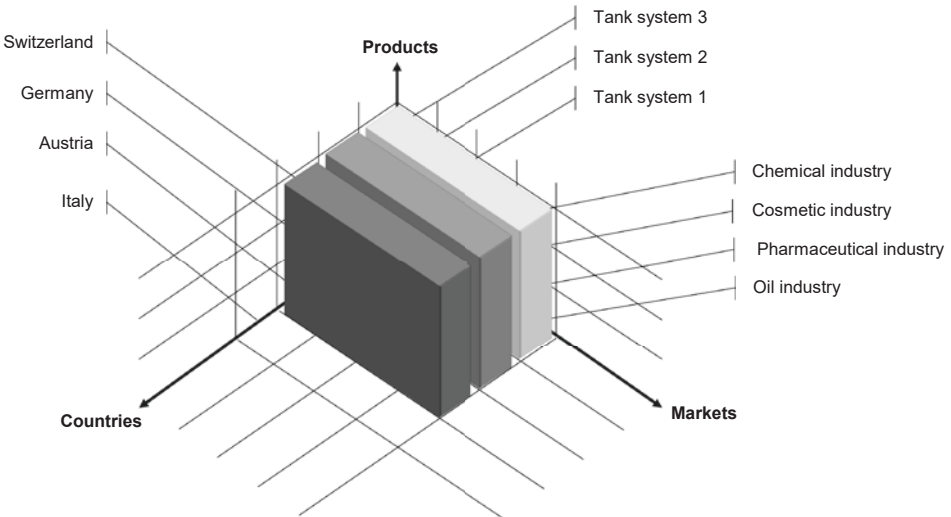
Fig. 75 Strategic responsibility in regional management

The resulting country-specific levels are led and managed with strategic responsibility by the company's country managers. An overlap of the management levels (product, market, region) leads to strategic conflicts. The second rule of strategic responsibility can be derived directly from this:

Strategic responsibility can be assigned to one dimension only in the company!

Strategic responsibility
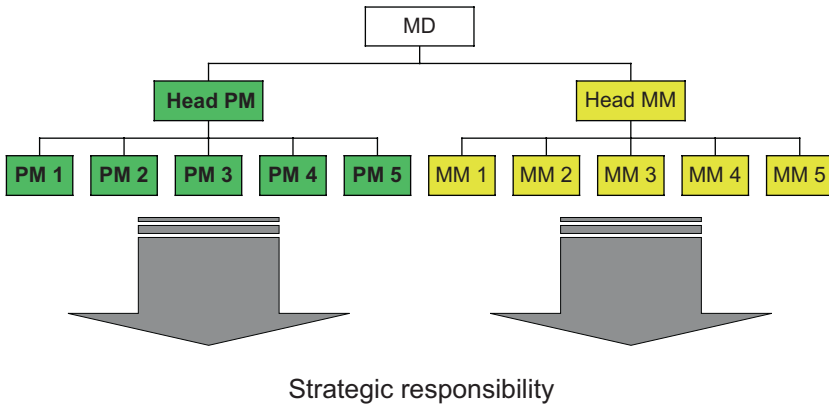
Fig. 76 Multiple assignment of strategic responsibility

The management (MD, CEO) or business unit management of your company must decide where the strategic responsibility is defined. This determination can only be made for one dimension (product or market or region). Multiple assignments lead to strategic conflicts that are very difficult to resolve in practice.

Figure 76 shows the situation of a company from the telecommunications industry. In this practical example, the company's management (MD) has assigned strategic responsibility to both product management and market management.

The company had product managers (PM1 to PM5) for the following product areas (extract):

- Terminals
- Router
- Networks
- PBX systems
- etc.

The following industries were assigned to market management (MM1 to MM5) (excerpt):

- Police departments
- Fire departments
- Emergency services
- Private service-providers
- etc.

However, in the practical application and implementation of this concept, some unsolvable problems and conflicts arose. Both product management and market management developed strategies and plans that involved different strategic thrusts and priorities in practical implementation.

There are now several possibilities for resolving these conflicts:

- The problem is delegated up to the top management. This approach makes no sense for the company. The objective of the top management was to delegate these tasks to a product or market management in order to achieve a relief.
- The problem is solved between product and market management. Experience shows that the strategic thrust is usually lost in many compromises. In the end, they agree on joint operational measures, and the strategic perspective is dropped.
- The problem is solved in the operational functional areas. This is very common in practice. In this form of problem solving, the functions usually enforce their individual focal points (see Fig. 77) without paying attention to any strategic orientation (which is not clear anyway).

The dual assignment of strategic responsibility in the telecommunications company described above had the following effects.

Example: Strategic conflicts between product and market management
   Within the framework of corporate planning, the management developed overall corporate guidelines. In parallel, product management and, of course, market management (as both are strategically responsible) developed corresponding concepts.
   A product manager (responsible for terminals) made a portfolio analysis for the different market segments ("industry portfolio"). The assessment of the attractiveness of the market segments and the matching competitive position for his product group quickly showed that, for example, the segment "private service providers" was highly attractive ("star") for the product group, but the segment "police departments" was classified as "poor dog" in the portfolio. The sales department was to be briefed accordingly.
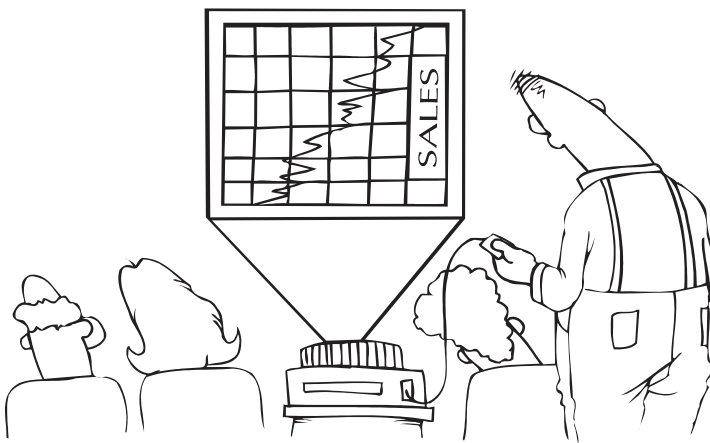
Fig. 77 Creative problem solving in sales. (Source: Corel Gallery Clipart Images)

The market manager for the market segment "police departments" chose a system approach in order to grow further in the market segment. A system architecture was created and the relevant documents were prepared for sales.

The presentation of both concepts in the management meeting raised the following question: "Is a product-oriented approach now appropriate for the company or is market segment orientation more appropriate?"

This, of course, highly simplified representation of the facts in the company clearly shows the potential for conflict. In this company, market management was subsequently established as the strategically responsible form of organisation. For this purpose, the organizational structure was changed. The market management was left directly below the management (MD), while the product management was integrated into the technical areas (as an operationally positioned product management).

9.2.2   Criteria for Determining Strategic Responsibility

Of course, you will now ask yourself which criterion should be used to determine the allocation of strategic responsibility. For companies with only one market, the decision is clear: Strategic responsibility lies with product management. Pharmaceutical companies often have this situation (see Fig. 78).

Even for companies with only one product that is used in several different markets, the strategic responsibility is clear. It lies with the market management (see Fig. 79).

Companies that sell different products in different markets face a challenge here. Product management or market management can be given strategic responsibility (see Fig. 80).

If you use product management in this situation, this usually requires the product manager to familiarize himself with many different markets. The diversity of the requirements of the market segments can then be taken into account by means of a differentiation strategy (differentiated marketing). If, however, the market segments are very large (e.g. global
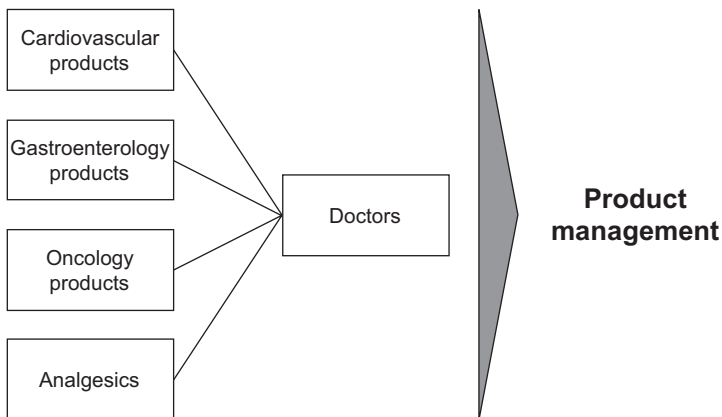
Fig. 78 Product management in strategic responsibility
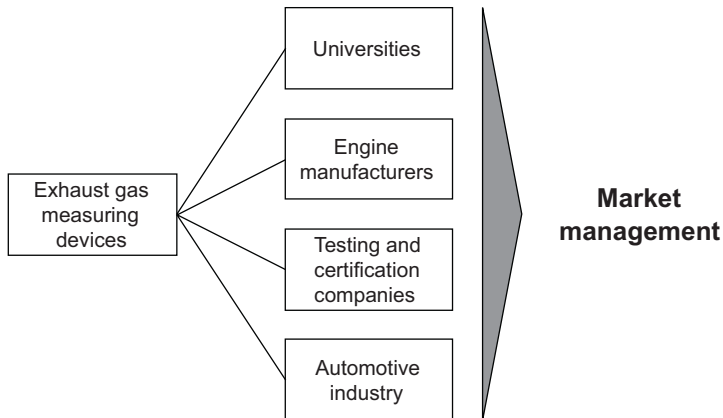
Fig. 79 Market management in strategic responsibility
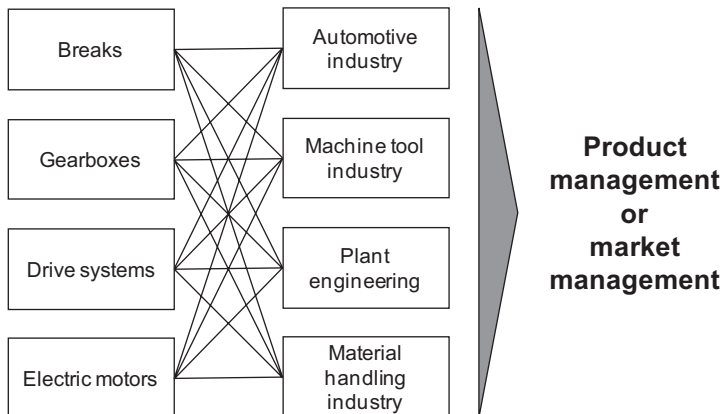
Fig. 80 Product management or market management

markets) and a high degree of differentiation and specialization is also necessary, the use of market management is probably more appropriate.

Example: Product management versus market management

   A synthetic fiber manufacturer had previously worked successfully with product management. Product managers were assigned to each type of synthetic fiber (e.g., product manager for nylon, orlon, etc.). Each product manager was responsible for revenue and contribution margin of the synthetic fibers and therefore concentrated the efforts on improving the result by appropriate strategies and measures and on expanding revenue by searching for new applications. Market management was also introduced in this company as part of a restructuring. Market managers were assigned to the following markets:

- Industrial textile users (workwear …)
- Clothing market (women's, men's clothing …)
- Furnishing market (curtains, carpets …)
- Technical textiles (filters, ropes …)
- etc.

The market managers focused their efforts on meeting the specific requirements of the respective application on the market without placing the emphasis on a particular synthetic fiber. The different orientation of product and market management also made it necessary to define strategic responsibility and thrust.

The following questions were discussed as part of the decision-making process:

- Should the sales department be product- or market-oriented?
- Is it necessary to use a product advertisement (by fibre type) or an application and market oriented advertisement?
- Who develops the pricing strategy and the pricing tactics?
- etc.

The following example from the sporting goods industry shows the problem even more clearly. In addition, it also becomes clear when a change in strategic responsibility is appropriate.

This company had been running product management very successfully for many years. The product managers were attached directly below management (MD, CEO) and were responsible for certain product groups (product categories) as category managers. Marketing and sales were product-related up to the POS (point of sale). Figure 81 shows the product structure (product group structure) in brief.

Each product manager optimized his product area (P1 to P6) at the POS. The focus with regard to the sports was also set by each product manager according to individual assessment. Thus, it was quite possible that in the shoe area the product manager placed a high priority on tennis, while in the textile area the product manager focused more on golf. Marketing at the POS was also product group-related (principle of the classic "shoe
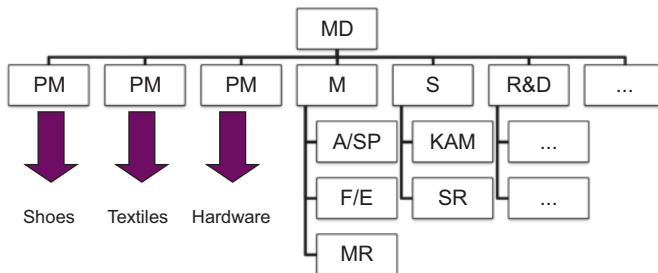
Fig. 81 Product structure in product management (excerpt)

department"). Figure 82 shows the floor plan of a classic sales outlet with the individual product-related departments (P1 to P6).

However, this previously very successful approach was called into question by declining sales figures. Among other things, a commissioned market research showed the trend that product-related shopping was losing importance on the customer side, while "sport-related" shopping was increasing. The sport-related shopping customer wants a well-rounded assortment of products and services for his sport. In the first phase, the company tried to meet this trend by aligning product management (see Fig. 83). However, this approach did not lead to the expected results.

The second phase was somewhat more radical. Separate "sports managers" (= market managers) were appointed for the key sports with the task of ensuring this coordination. However, strategic responsibility remained with product management (see Fig. 84).

Fig. 82 Product orientation at the POS
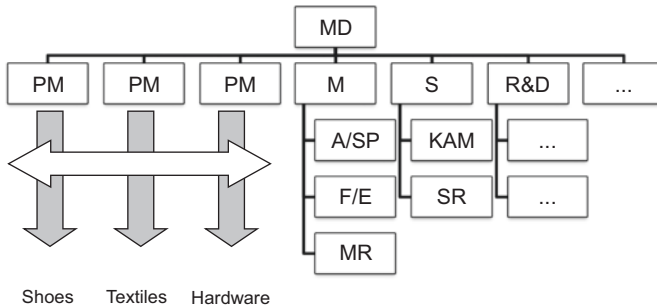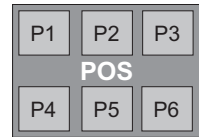
Fig. 83 Coordination in product management
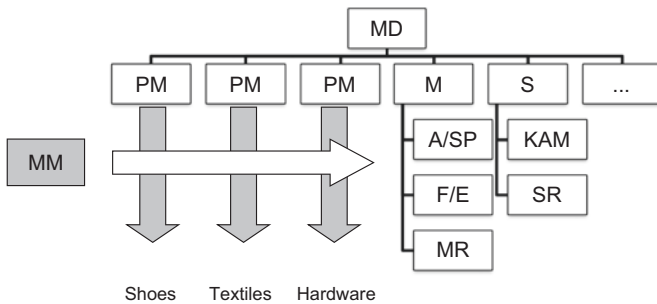
Fig. 84 Market management as coordinator
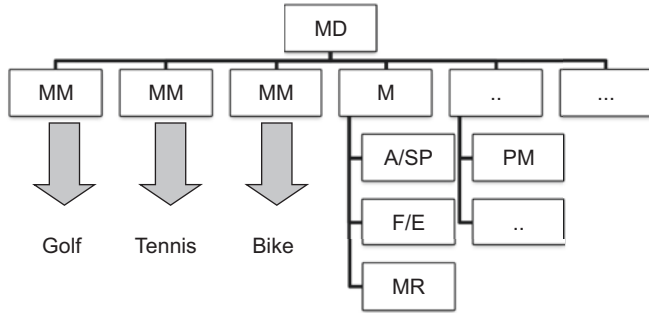
Fig. 85 Market management as strategically responsible

Fig. 86 Market orientation
at the POS
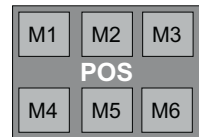
The third phase then led to a restructuring in the company. The market managers (MM) were established as strategically responsible in the company and thus assigned directly to the management. Product management became operationally oriented and thus lost its strategic responsibility. This also involved a new organizational integration of product management in the company. Product management was assigned to a function (see Fig. 85).

The reallocation of strategic responsibility also had an impact on the structure at the POS (see Fig. 86). Product-based selling (departments aligned by product categories) was replaced in favor of market-based selling (sales departments by sports = market segments) (M1 to M6).

As you can see from this example, the criterion of how strategic responsibility is assigned is on the market and customer side.

The central question is:

How does the customer shop?

If the customer purchases from a product-oriented perspective, you can assign strategic responsibility to product management. If the customer buys more from a market perspective, as shown in the case described, you need to assign strategic responsibility to market management. You can apply the same principle to the question of strategic responsibility in regional management. You can therefore only make the decision on product or market management as the strategically responsible position by taking the market-relevant success factors into account.

10   Product Versus System? The Way to System Product Management

The discussion on strategic responsibility has already shown how complex the situation in companies can be. The bases for decision-making are often not clear and unambiguous and require an intensive process of analysis and discussion.

But things are also changing on the product side. The market no longer demands products, but complex problem solutions and services (= systems). Due to the reduction of vertical integration on the customer side, integration services are demanded from the suppliers. The classic product supplier has thus often become obsolete. This new situation directly affects you as a product manager. The phases that companies can go through on the way to systems business and the new challenges that systems business offers are described here.

10.1   From Marketing Management to System Product Management

The presentation of the development steps from marketing management to product/market management to system product management is important insofar as companies usually do not make the big leap in their development, but rather take some intermediate steps. These necessary stages serve as preparation and learning steps to gradually adapt to changing market and customer requirements. Knowing these stages allows you to determine which phase your company is currently in and which questions and decisions result from it.

The Classic Marketing Management
In this classical form, the company tries to cover all the concerns of the market and the customers through the marketing function. This approach was also practiced by Procter & Gamble before the introduction of product management. The advantages and disadvantages are obvious. The product market matrix in Fig. 87 shows the comprehensive coverage of marketing management. The product market matrix is a simple structuring tool in which the products or product groups (P1 to P5) are combined with the market segments of the entire product market (M1 to M6).

As the company grows, the increasing number of products will exceed the capacity of the functional area of marketing and thus of marketing management. Competitive pressure will also make it necessary for certain products or product groups to be specially promoted through special programs. This paves the way for the introduction of product management.

The Introduction of Product Management
The introduction of product management is no longer an option in many companies today, but a necessity. The professionalization of product management on the competitive side makes it necessary to counteract with appropriate resources (personnel and budget). The

Fig. 87 Degree of coverage of classical marketing management

Fig. 88 Degree of coverage in product management

degree of coverage (see Fig. 88) is reduced by product management (product-related) and thus (hopefully) the degree of efficiency is increased.

As a product manager, you will be deployed as a product market specialist for cross-functional coordination. In your strategic responsibility as a management function, you are responsible for the success of the product or product group in the entire product market. But even here there are specifics and special forms. Some companies divide the

Products \ Markets	M1	M2	M3	M4	M5	M6
P1	Product manager technology 1					
	Product marketing manager 1					
P2	Product manager technology 2					
	Product marketing manager 2					
P3	Product manager technology 3					
	Product marketing manager 3					
P4	Product manager technology 4					
	Product marketing manager 4					
P5	Product manager technology 5					
	Product marketing manager 5					

Fig. 89 Splitting of product management tasks between two persons

responsibilities of the product manager by splitting the internal-technical and external-market issues between two people (see Fig. 89). The goal is to achieve even better specialization or allocation of resources.

The product manager technology and the product marketing manager work closely together to ensure product success. Such a division certainly makes sense if the requirements in terms of product engineering and technology as well as the market and competitive situation are correspondingly high.

The degree of globalization of the company and the associated complexity of the product business are also important influencing factors.

Example: Division of the product management function

One company in the electronics industry split the product management function between two people as follows:

The **product marketing manager** is primarily responsible for:

- ensuring the market orientation of the product
- a successful positioning against the competition
- the marketing of the existing product range
- the internal, marketing-related aspects
- the coordination of the interfaces to sales, marketing …

The **product manager technology** is primarily responsible for:

- ensuring technical and technological orientation

- the relationship with relevant technology and development partners
- the coordination of the product development up to the pre-series
- the internal, technical aspects
- the coordination of the interfaces to R&D, purchasing, production …

The product marketing manager and product manager technology are placed in the same office. This also ensures close cooperation and coordination. The analysis of the product market, strategy development and operational product planning are carried out jointly.

The job profiles of the two people are correspondingly different. A company from the technology sector has allocated the tasks between product marketing manager and product manager technology as follows:

Example: Different task profiles
Product management technology job profile (excerpt):

- Pursuit of technical and technological trends and developments
- Analysis of technical roadmaps from suppliers and manufacturers
- Development and implementation of technical product roadmaps
- Development of technical product strategies
- Technical product life cycle management
- Coordination of research & development, purchasing, production, quality management …
- Analysis and optimization of development and manufacturing costs
- Coordination of customer-specific product adaptations and developments
- Definition of article numbers
- Coordination of the development of product specifications with R&D
- Relationship management with technology partners
- Coordination of sample and pre-series development
- Technical competitive comparisons at product and technology level
- Responsible for rollout process up to pre-production stage
- etc.

Product marketing manager job profile (excerpt):

- Development of market strategies according to the product life cycle
- Price-performance positioning of the product in the competitive environment
- Interface management to sales, marketing …
- Responsible for rollout/lanch processes after pre-series
- Market and competitor analysis
- Definition of product-related market requirements/specifications
- Development of business plans and market launch plans
- Responsible for revenue, contribution margin and budget
- Determination of prices and pricing strategies
- Development of internal and external communication
- Development of annual plans as part of the product planning process
- Provision of national and international price lists

- Development of the marketing mix and marketing strategies
- Development of sales documentation and coordination of sales training
- etc.

The Transition to Market Management

The transition to market management means a stronger emphasis on the differences in the individual market segments in the overall market. Although this can be done via product management by means of greater market segment-specific differentiation of product performance as part of a differentiated marketing strategy, in many cases this approach alone is not sufficient. Coverage in the product market matrix, as Fig. 90 shows, is done in market management not by products but by market segments.

Market managers are responsible for cross-product success in the market segment. To optimize performance in the market segment, market managers often use the following strategies:

- Product bundling
- Cross-selling strategies by exploiting economies of scope in product purchasing
- Integration of individual products within the framework of customer-specific projects

The consistent further development of these strategies inevitably leads to the systems approach. Although market management is an organizational form in its own right, it can therefore certainly also be described as a preliminary stage to system product management.

Fig. 90 Degree of coverage in market management

Markets	M1	M2	M3	M4	M5	M6
Products						
P1	▢	▢	▢			
P2	▢	▢				
P3	▢	▢				
P4	▢					
P5						

Product market manager
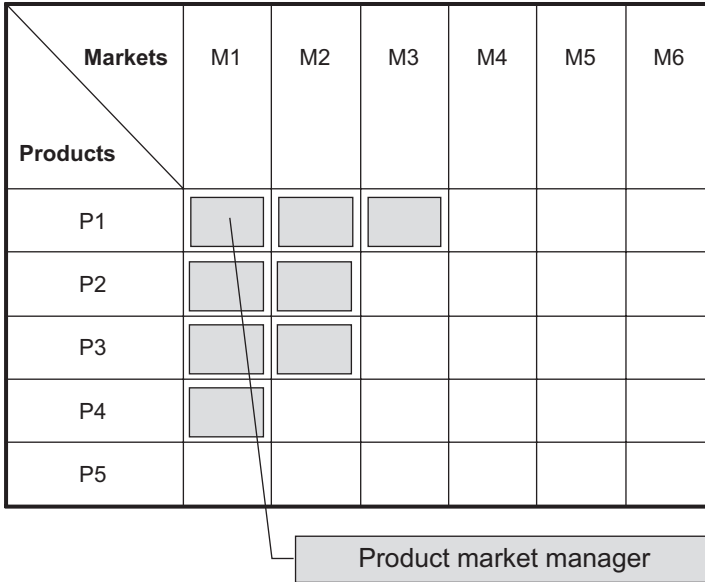
Fig. 91 Specialization through product market management

A further specialization to the product market manager can be done either via the product management approach or via the market management approach. The degree of coverage of a product market manager is extremely small here, as shown in Fig. 91.

The very specialized form of product market management is still comparatively rare. The size of the market segment, the regional extent, the necessary degree of specialization and the competitive situation play a central role in the decision to introduce it.

The Establishment of System Product Management

The change from product business to system business brings a new dimension to the product market matrix. While the product business is characterized by the fact that you sell products to customers so that they can be used there in isolation, the system business is characterized by the fact that the offering is used in conjunction with other products. Figure 92 shows the degree of coverage of the system product manager.

System product managers can also develop a system for the entire market or specifically for individual market segments.

10.2   Basic Principles of System Product Management

System product management is based on the same basic principles as classic product management. Additional elements are the structure of the system architecture and special features in the organizational integration.
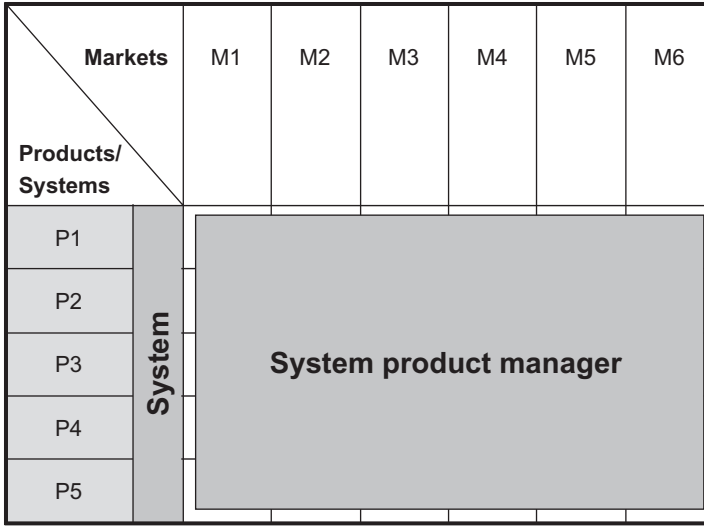
Fig. 92   Degree of coverage in system product management

The Structure of the System Architecture
In the development of systems, individual products (system components) are integrated to form systems.

   Examples of systems include:

- Telecommunications systems
- Flight control systems
- Logistics systems
- Traffic guidance systems
- Tolling systems
- Television broadcasting systems
- Cash management systems
- etc.

The integration know-how and the performed integration form essential core competencies. The individual products or components of the system should be largely standardized system modules. The components are usually integrated on the basis of specifically defined integration concepts, also called system architectures or system concepts (see Fig. 93).

   These concepts/architectures must be developed by the system product manager and also marketed as such. The system architecture is documented in writing and presented graphically.

   Example: Contents of a system architecture
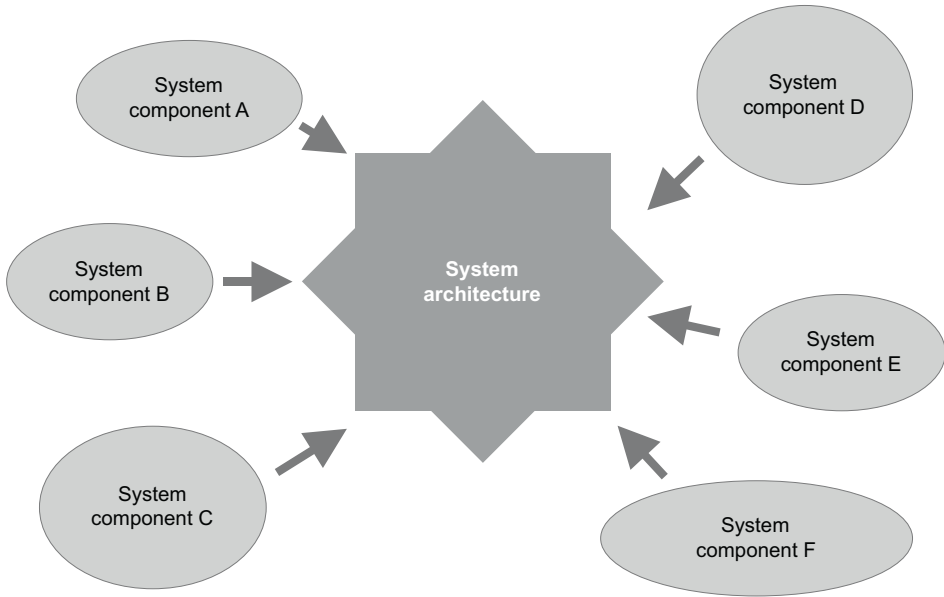
Fig. 93 System architecture and system components

- System name:
- System product manager:
- Version:
- Recent changes:
- Storage location:
- System structure:

  – Products, components, parts that make up the system
  – System-external and system-internal interfaces
  – Graphical overview of the system

- Detailed description of products, components, parts:

  – Brief description product 1
  – Brief description component 1
  – Brief description product 2
  – Brief description component 2
  – …
  – …
  – Brief description product N
  – Brief description component N

- Detailed description of interfaces:

  – Interfaces between products, components, parts (internal to the system)
  – Interfaces at the system boundaries (external to the system)

- Development plan

  – Make/buy decisions regarding products, components, parts

–   In-house development of products, components, parts
–   Determination of compatibilities

System architectures are usually put together in the initial phase of system marketing in customer-specific projects and also usually only roughly. Later on, it must be considered how this system business is to be organizationally anchored in the company and which specific processes, structures, capacities and competencies are to be built up.

The Integration of the System Business in the Company
System product managers form an additional interface in the company. Similar to the product manager, they must ensure cross-functional coordination for their system and simultaneously coordinate the interface to the product managers. This also creates a new situation for you as a product manager (see Fig. 94).

An example of the development of system product management from an industrial company is shown in Fig. 95.

In this company, the following procedure was defined for customer acquisition in the systems business:

•   Stage 1: Customer contact through sales and/or key account management
•   Stage 2: Requirement assessment and description
•   Stage 3: Set-up of a customer-specific project team
•   Stage 4: Development of a customer-specific system
•   Stage 5: Technical release of the system
•   Stage 6: Economic release of the system
•   Stage 7: Acceptance by the customer
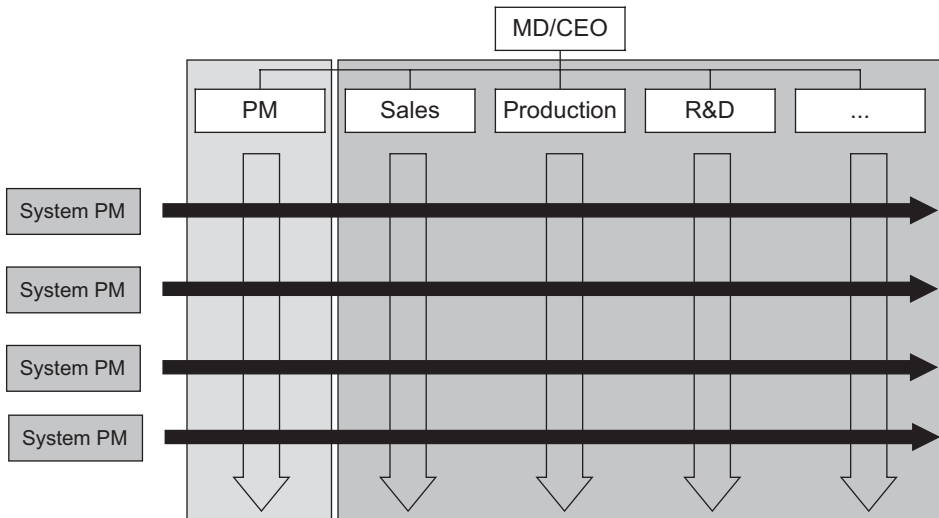
Fig. 94 Interfaces in system product management
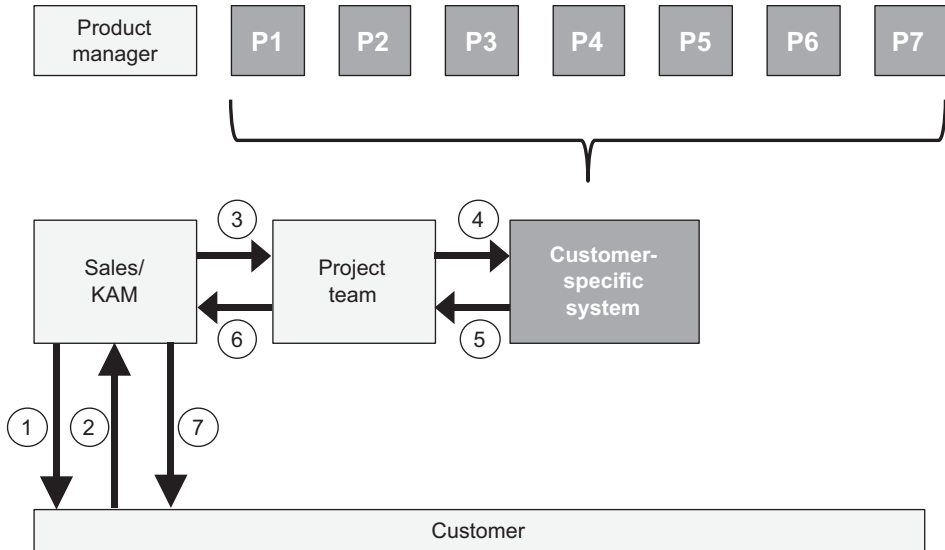
Fig. 95 Structure of systems business in the industrial sector (general structure/process)

This approach meant that virtually every system was custom-built. High development and engineering costs due to the hardware and software integration of the individual products led to a rethink. Product management, previously responsible for the company's individual products and product groups, was transformed into component product management (see Fig. 96). In addition, system product managers were installed for five different systems.

The system product managers focused on the following:

- Strategically responsible for the system
- Structure and further development of the system concepts
- Derivation of the requirements for the system components (the implementation was carried out by the component product managers)
- Development of a system standard
- Analysis, strategy development and planning for the system
- etc.

System standards were developed by the system product managers. These system standards contained most of the functions and requirements repeatedly requested by customers. For customer-specific developments, these system standards were used. Based on these, the specific customer requirements were integrated. The resulting reduction in engineering costs was significant.

In the systems business, the shift from product marketing to systems marketing is essential. The customer no longer buys individual products, but a system. He is therefore
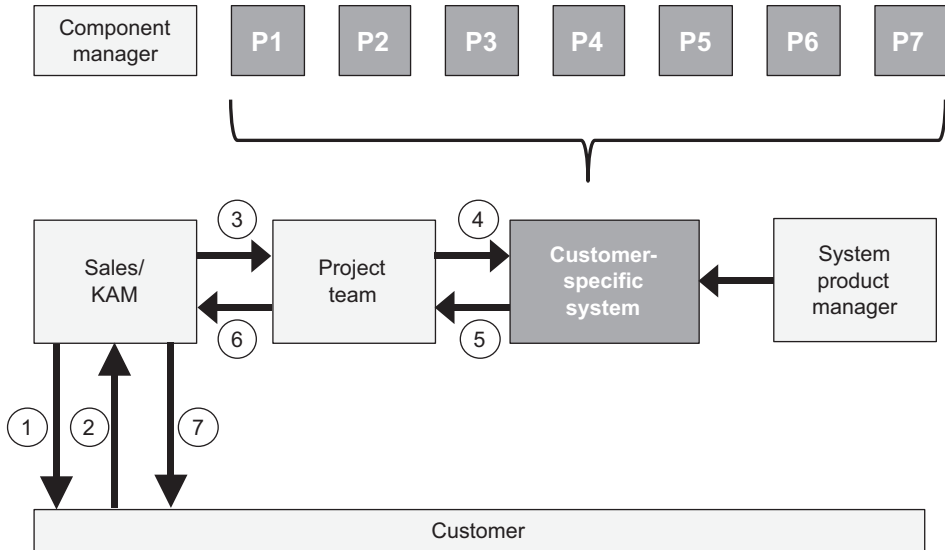
Fig. 96 Component and system product management

forced to make a system concept decision. On the basis of this system decision, the individual products or components are subsequently procured and integrated. For this system concept decision, the customer also uses service-related and company-related criteria in addition to the classic system-related decision criteria.

A survey conducted by MSG Management Systems St. Gallen among industrial companies regarding selection criteria for the procurement of systems revealed the following decision criteria:

- System performance
- System scope (range of functions)
- Compatibility
  - with own and external components within the system
  - with own and third-party components (systems) outside the system
  - with customer internal systems, processes and infrastructure
- Services and support
- Supplier company
  - Problem solving capacity (hardware, software, integration …)
  - Existing business relationships
  - Market position of the supplier (size, market share, internationality …)
  - Specific references (system-related)
  - Core competencies of the supplier (project management, technology …)
  - Access to resources (financial resources, knowledge…)
  - Capacities (R&D, production, logistics …)
  - Positioning of the supplier (innovation, technology, costs …)

The system product manager must take these criteria into account as part of the analysis, strategy and planning processes.

System product managers as a whole are confronted with a completely new starting position. These include in particular:

- New competitors (including new entrants from other technology sectors).
- New rules of the game (customer requirements, buying processes, buying behaviour).
- Change in the required core competencies (system concept and integration).
- New customers and customer types (system customers vs. product customers).
- Additional complexity within the own organization.
- Greater complexity in the production and marketing of services.
- New supplier roles (e.g. system supplier versus system operator).
- etc.

11   What Will the Future Bring? Current Trends and Developments in Product Management

Markets, competitors, environmental factors and internal company conditions are constantly changing. This results in requirements and specifications that are also reflected in product management. Your area is constantly changing and adapting.

In this chapter we discuss the following trends and developments in product management:

- The product manager as a profit center
- Product management teams
- Centralisation of competences
- Service orientation in product management.

11.1   The Product Manager as a Profit Center

With increasing performance orientation and thus also the necessary clear delimitation of products and services, profit center models are becoming more and more important. This has not stopped at product management. Not only revenue and contribution margins are assigned to product management, but also the entire cost management is charged to product management in the course of this delimitation of products and services. The example of a company in the IT sector shows such a profit center approach (see Fig. 97).

As you can see, in this company, product management is attached directly below the business unit management. The product managers have revenue and contribution margin responsibility for their assigned product groups.

Fig. 97 Profit responsibility in product management
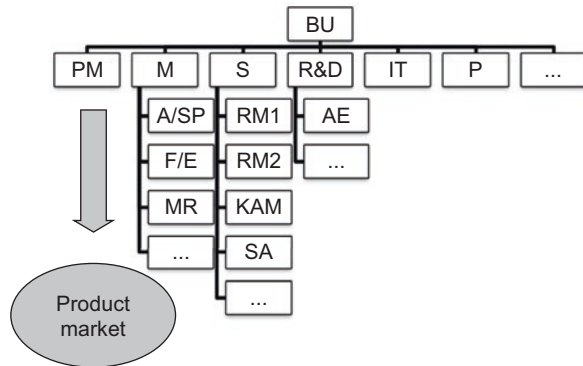
In this case, however, the problem lay in the responsibility for the contribution margin. The costs of the functional areas were distributed to the product groups using various allocation procedures. Thus, it happened that a product manager was charged development costs although he had not used any development services from the R&D department in this period. A meaningful contribution margin calculation could not be created on this basis. Additionally, aggravating were serious interface problems between functional and product management. The solution was a sophisticated profit center approach. Product management was established as a kind of "profit center". The business relationships between the profit center product management and the functional areas were reorganized according to the following procedure. The existing pay-as-you-go system was completely dissolved.

Step 1: Creation of a Briefing
If the product manager requires services from the functions, a briefing must be prepared. The briefings for purchasing services are to be formulated in writing (briefing forms have been developed for standard briefings, together with the functional areas). The briefing documents are collected in a briefing folder and are available to product management as a working tool.

Example: Outline of briefing document for market research (excerpt)

- Purpose/intention
- Description product/product group
- Description market/market segments/customer group
- Goals and objectives
- Presentation of the information to be determined (quantitative, qualitative)

- Market information
- Competitor information
- Environmental information

- Statistical data
- Chronological data
- Preparation of the information
- etc.

Step 2: Quotation Preparation

Based on the briefing by the product manager, the functional area concerned prepares an offer. This offer is also to be formulated in writing and contains a budget necessary for implementation.

Step 3: Implementation and Service Accounting

If the product manager carries out the measure with the functional area, the functional area is entitled to charge the estimated budget to the product manager.

With this procedure, the product manager at least had planning security with regard to the costs. Cost overruns by the functional areas could not be subsequently passed on and had to be borne by the functional area. However, this subsequently led to the functional areas budgeting "generously" to ensure that all costs and other contingencies could be charged.

In turn, the management intervened and gave product management the option of purchasing services externally (see Fig. 98). During a transition period of about two years, product management and the functional areas were able to adjust to the new system.

The results were encouraging. Following the transition period, significant cost reductions were achieved in product management in the first year. However, capacity adjustments had to be made in some functional areas because they could not keep up with external competition and were not able to develop a core competence. The interface problems have practically disappeared with the new system. The profit center product management is the consistent further development of product management as a management function responsible for contribution margins and revenue.

To ensure that this procedure works, you must observe the following points:
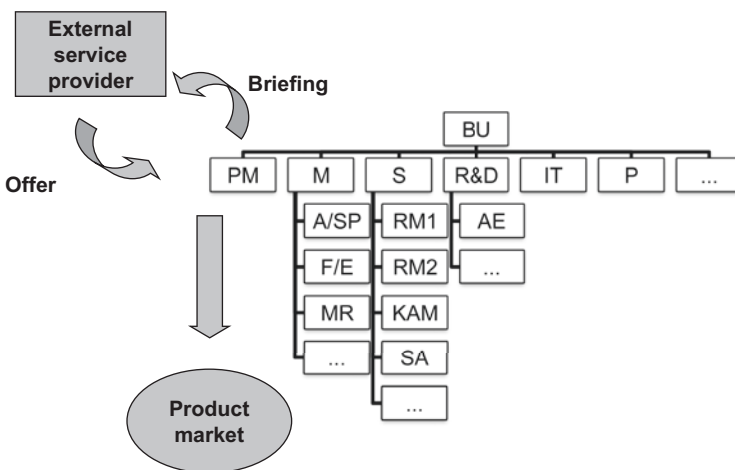
Fig. 98 Profit center approach in product management

- Clear allocation of profit/loss/costs/revenue
- Functional areas are considered service or cost centers
- Professionalization of functions through external competition
- Building internal customer relationships
- Clear interfaces and competencies
- Creation of transitional periods for adaptation
- Examine and build core competencies in the functions.

11.2   The Use of Product Management Teams

As a product manager, you coordinate and control the product-oriented business with the functional areas mostly by means of bilateral coordination meetings and goal agreements. Since your colleagues in product management also perform this role for their products or product groups, conflicts and unreliability during implementation occur time and again in practice. Keep in mind that you not only have to consider the external competition in the product, but also the internal competition among the product managers in the fight for scarce resources (see Fig. 99).

You can of course use the product portfolio to set priorities, but only a product team creates a relatively reliable basis for the following requirements:

- Assignment of the necessary resources in the functions to the product
- Ensuring the implementation of the measures in the functional areas
- Compliance with the goal agreement in terms of budget, time, objectives, content …
- Controlling of the measures in the context of implementation
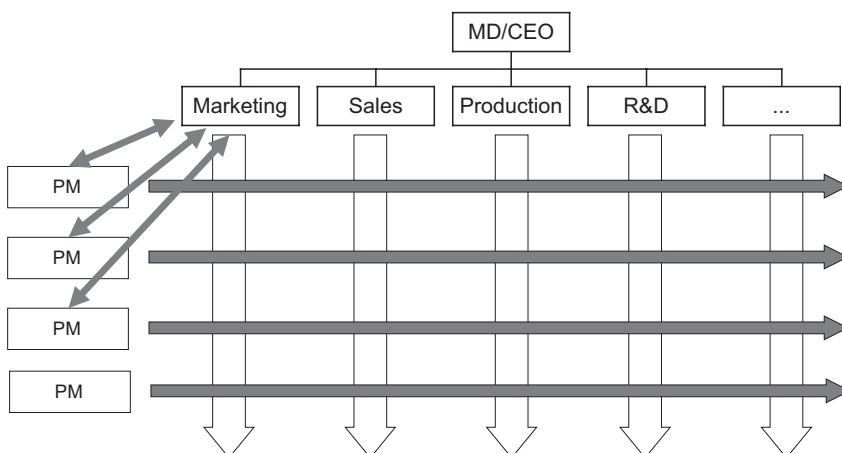
Fig. 99 Bilateral coordination by the product manager

In addition to you, the product manager, people from functional areas that are important for product management are recruited to put together a product team. Usually, a product team is not put together for all products or product groups. It makes sense that you focus on strategically important products or product groups according to the product portfolio.

Figure 100 shows the basic principle of assigning people from the functional areas to the product teams.

When assembling product teams, keep the following basic principles in mind:

- Product teams are permanent teams (not temporary project teams!).
- As a product manager, you are usually the team leader of the product team.
- The product team members from the functional areas are assigned by name and fixed (no personnel rotation per function).
- You are responsible for the quality of the product team. Therefore, you have an influence on the selection of the team members.

With the formation of product teams, you integrate the functional areas into the work in product management. With the product team, the functions are not only active in implementation management, but are already involved in the conception phase (product analysis, strategy formulation, and planning). Figure 101 shows this integration in the three-level model.

By integrating the functional areas into the product team and thus into the strategic planning of the product, the affected functional areas are made stakeholders at an early stage. The subsequent communication of the product strategy and product planning is
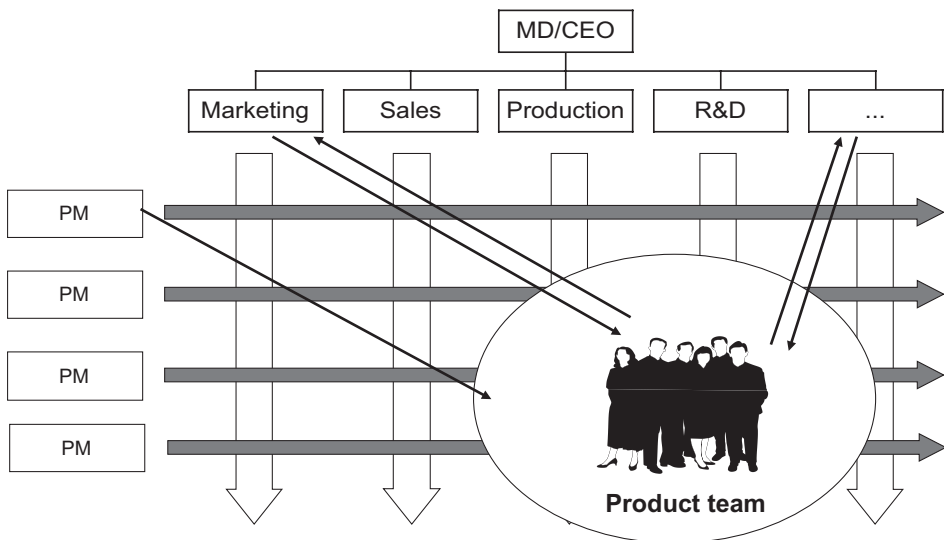
Fig. 100 Composition of product teams

Level	Goals/Tasks	Position
Dispositive level	Optimization ROI Product portfolio management Basic product strategies Resource allocation	MD, CEO business unit management
Strategic level	Optimization revenue/contribution Strategy development/planning Control/coordination/steering	**Product team**
Operational level	Implementation/execution	

Fig. 101   Integration of the functions in the conception phases

therefore made easier for you. You also benefit early on from the functional specialist knowledge of your team members, who bring this into the planning process and thus prevent conflicts and problems of understanding during implementation.

Pay attention to the team development process when introducing product teams. Unrealistic expectations regarding the increase in the performance level of product teams often lead to a departure from product teams. In fact, in practice, you should initially even expect a drop in performance (see Fig. 102).

The teams formed have not yet developed their own processes, structures and methods for working together, and different personalities need to be integrated. Your team and you need time for team development, and this initially consumes resources in the team that may be lacking in product management. However, practical experience shows that product management works much better with a product team. Therefore, be patient. Today, companies are already moving towards agreeing on goals with the product teams themselves and also paying out a team bonus for team performance.

11.3   Centralization of Competences in Product Management

In recent years, the centralization of tasks and responsibilities has become increasingly prevalent in companies. This phenomenon leads to the fact that these tasks and responsibilities are taken away from product management and transferred to a central department in the company. Figure 103 shows this procedure using the example of a company from the industrial cleaning sector.

The company is divided into business units. Each business unit is strategically autonomous, i.e. it pursues its own strategy independent of other business units. The functions
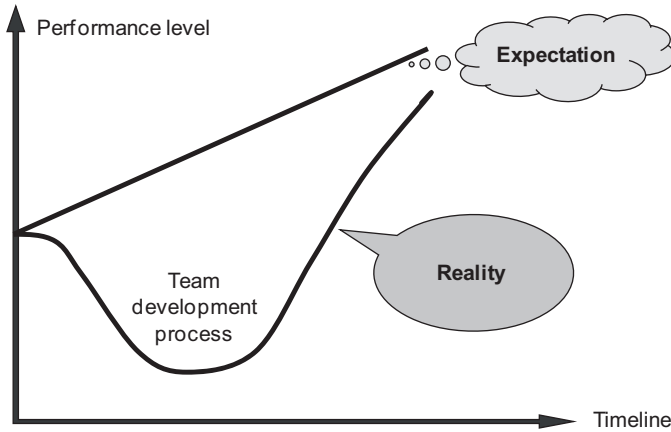
Fig. 102 Development of the performance level of product teams

Fig. 103 Business unit
structure with product
management (excerpt)
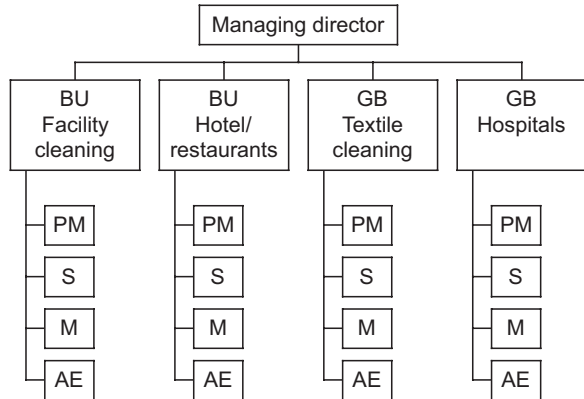
and product management are integrated in each business unit. The company produces and markets cleaning agents and cleaning equipment.

Due to internationalization and globalization of markets, closer convergence of industries and also growing transparency, product management was increasingly confronted with cross-business unit issues such as price harmonization, etc. Initially, product managers tried to coordinate on such situations, but over time, management saw that a proactive approach to these issues was needed. To this end, central departments were created for specific issues, which made product-related decisions across business units. This severely limited the strategic decision-making freedom of the product managers in the individual business unit.

The following topics have been "centralized":
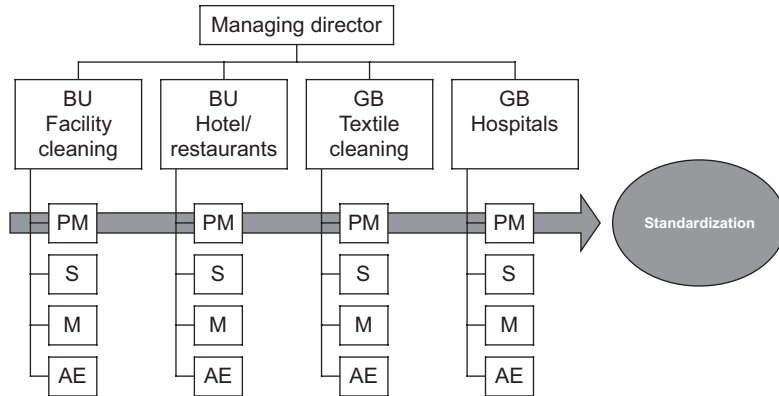
Fig. 104 Cross-product standardization (basic principle)

- National and international pricing models
- National and international brand management
- Product standardization for basic products
- Standardisation of product labelling
- etc.

In this company, high cost reduction potentials were realized especially in cross-product standardization (see Fig. 104).

In a company from the cosmetics industry, the introduction of brand management has also removed this decision-making area from the product management. Before the introduction of brand management, the product managers were responsible for the individual product brands and thus for brand management. The decision of the company management for an umbrella brand concept with simultaneous introduction of the brand management organization led to a withdrawal of this decision area from product management.

The centralization of brand management decisions for the umbrella brand was also accomplished organizationally in such a way that brand management was superordinated to product management (see Figs. 105 and 106).

Brand management tasks:

- Brand positioning
- Brand strategy
- Brand logo
- Brand communication
- etc.
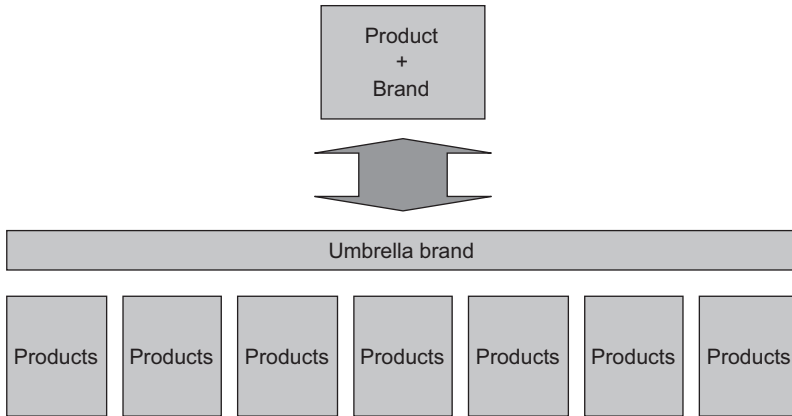
Fig. 105 Product brand concept versus umbrella brand concept
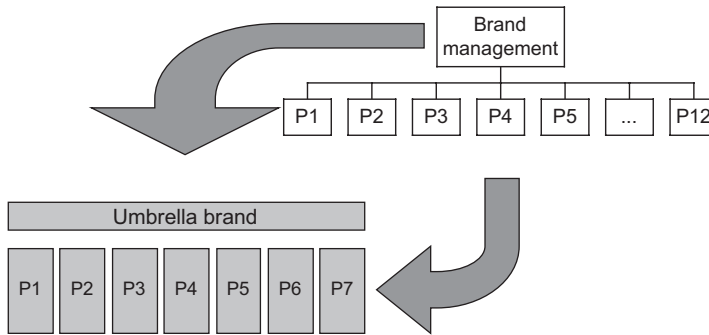
Fig. 106 Organization of brand management and product management

Product management tasks:

- Product analysis (without brand analysis)
- Product strategy (without brand strategy)
- Product planning
- Product USP (Unique Selling Proposition)
- Product communication
- etc.

In the strategies and measures for his product area, the product manager had to comply with and take into account the framework conditions specified by brand management with regard to the umbrella brand. This is probably not a problem in the case described, as product management is organizationally subordinate to brand management.

11.4   Service Orientation in Product Management

In recent years, the development from product marketing to service marketing has progressed further. Similar to the systems business, the customer's decision is shifting away from the product to the service. The path to the service society, recognizable by the growing share of services in the total value added, will continue in the future and bring about corresponding changes in the markets, in the companies and in your product management. These changes in companies, especially in product management, are illustrated by the example of a machine manufacturer. The company had a classic product orientation with product managers who were responsible for specific machinery. (see Fig. 107).

Increasing competitive pressure from Asian suppliers forced the company to abandon its product-oriented approach. Although an attempt was made in the early days to keep pace with the competition by cutting prices and optimizing costs, this approach could not be sustained in the long term.

As part of an internal project, the situation was analyzed and an attempt was made to find a solution. In the end, the necessary approach was found in the life cycle cost model. As an example, the life cycle costs (= costs incurred by the customer during the entire useful life of the product) were determined for some customers. The result was clear. The acquisition costs of the machine (purchasing prices) were only a fraction of the total costs.

The actual cost burden was incurred by the customer when using the products. This result also showed the solution. A further price reduction of the products no longer made sense. The improvement of the costs in the use of the products had to be tackled.

Examples of cost items in the use of the products were:

- Service costs
- Repair costs
- Operating costs
- Downtimes
- etc.
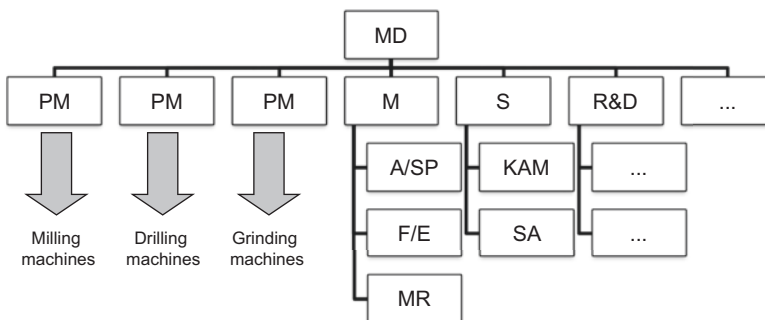
Fig. 107   Product management in an industrial company (excerpt)

The service needed to optimise usage costs was sought and found in the form of a remote diagnostic system. Machines were equipped with sensors and connected to a remote diagnostic center. If the sensor reported a possible defect, the problem could be analyzed at an early stage and proactively solved. This type of services produced a dominant benefit for the customer through cost savings and improved results.

The transition from product management to service management was thus only a matter of time. The company increasingly moved towards placing the service of remote diagnosis in the foreground in its marketing. Various service packages were put together and marketed separately. The marketing of the products (machines) was finally discontinued and with it the strategically responsible product management. Strategically responsible service managers were appointed for the individual service packages, and product management was repositioned (operationally implementing) (see Fig. 108).

12   The Implementation: Checklist for the Identification of Optimization Potentials

Now it's your turn. As a product manager, you should not wait for your supervisor to take action and set up the framework for successful product management for you. No, you have to act! This checklist (see Table 5) is available to you for this purpose. You can use it to determine the central optimization potentials and then, with appropriate concepts and measures, prepare for implementation and optimization. In this process, constantly coordinate with important managers and employees (opinion leaders) in your company. Also remember: Good things take time!
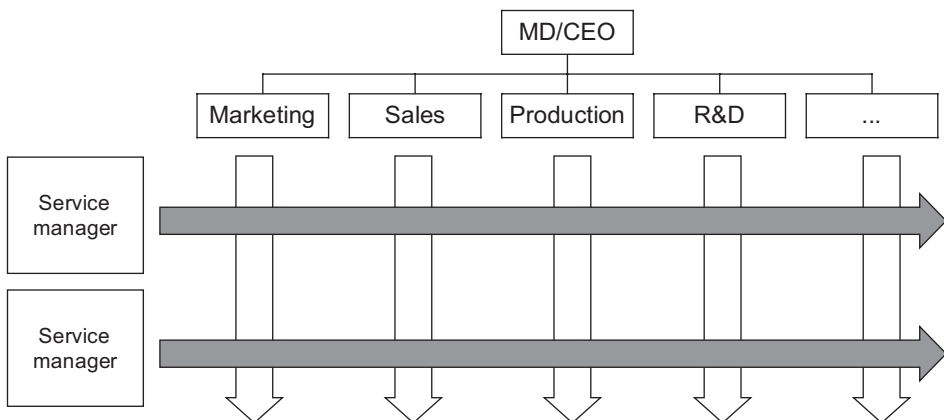
Fig. 108 Strategically responsible service managers (diagram)

Table 5 Product management checklist

	Applies	Applies little	Does not apply
1. There is clarity in my company about the objectives, basic principles and definition of product management	☐	☐	☐
2. We have a clear demarcation between functional and product management	☐	☐	☐
3. Conflicts between functional areas and product management are dealt with openly and constructively in our company	☐	☐	☐
4. We have streamlined and clearly delineated the tasks and interfaces between functional areas and product management	☐	☐	☐
5. The operational and strategic responsibility of product management in our company is clarified and the product managers are positioned accordingly	☐	☐	☐
6. We in product management have sufficient time and resources to perform the strategic tasks for our products	☐	☐	☐
7. We have a job profile and a job description for our product management	☐	☐	☐
8. We as product managers have a strong market and customer orientation	☐	☐	☐
9. Our product management is integrated into both corporate planning (dispositive level) and functional area planning (operational level)	☐	☐	☐
10. Annual goal agreement for the definition of product-related goals take place with product management	☐	☐	☐
11. Appropriate analysis, strategies and annual product plans are available for our products/product groups	☐	☐	☐
12. Our product management enjoys the support of top management, which also – if necessary – assumes a coaching function for us	☐	☐	☐
13. The product management in our company is properly organized according to the basic principles of strategic and operational responsibility	☐	☐	☐
14. There is a product management support program in our company and our product managers are sufficiently qualified	☐	☐	☐
15. Product managers have extensive tools and instruments (analysis tools, controlling tools, planning tools …) at their disposal for product management	☐	☐	☐
16. By continuously reviewing current trends and developments in product management, our product management is up to date	☐	☐	☐

Product Marketing: Structures, Success Factors and Practical Tools

1 Setting the Stage: How Product Managers Structure Complex Markets

A clear structuring of the product market is gaining importance especially in international product marketing. Product market analysis, strategy development and product planning are in many cases only meaningful if the entire product market is further divided.

> **Example: Structuring the product market**
>
> As part of the introduction of product planning, the product teams of a toy manufacturer were given the task of analyzing their assigned product markets (gaming industry), developing a strategy and creating a product plan (annual plan). A product team led by the product manager wanted to start with the SWOT analysis for the entire product market. Soon, the team realized that a country/region-specific SWOT analysis was more useful. It kept happening that in some countries, the strengths and weaknesses on the same criterion were highly different. An additional breakdown of the product market by market segment (e.g. children, teenagers, adults, etc.) and by technology (e.g. manual, IT-based, etc.) was also reviewed and applied.

You can divide and structure product markets according to the following criteria:

- Markets
- Products
- Functions
- Technologies
- Regions

By combining two or more criteria, you can develop two- and three-dimensional structural models and, based on these, form product market combinations or planning units that serve as the basis for your more extensive considerations in product marketing.

Two structuring models frequently used in practice are available for this purpose:

- Productmarket matrix
- Function technology matrix

But beware! Especially when using the product market matrix, problems arise again and again in practice with the differentiation between product segmentation and market segmentation or the definition of a market and product segment.

Although the two approaches are similar in principle, they are not interchangeable. A clear separation and distinction is particularly crucial for the application of the product market matrix (see Fig. 1).

1.1 Market Segmentation

Market segmentation is the division of a given product market into submarkets and/or target groups (market segments), which differ in that the buying behavior and the underlying buying motives, needs and requirements are relatively homogeneous within a market segment, but relatively heterogeneous between the market segments (see Fig. 2).

Consider the following basic principle of market segmentation:

Market segmentation is market-oriented!

1.1.1 Market segmentation Criteria

For market segmentation, product managers very often use the classic segmentation criteria:

1. **Segmentation criteria consumer goods markets (excerpt)**
   (a) **Demographic criteria**
       Age groups
       Gender
       Family/household size
       Family life cycle
       Income/purchasing power
       Profession/education
       etc.

Fig. 1 Market segmentation versus product segmentation
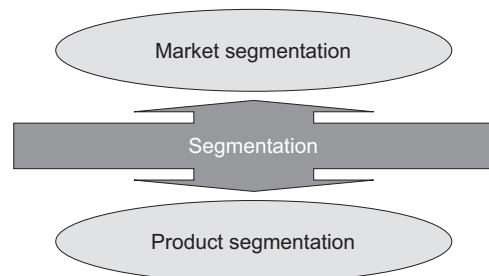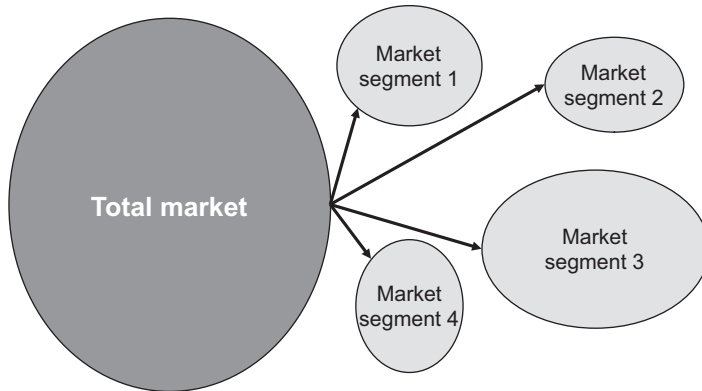
Fig. 2 Basic principle of market segmentation

    (b) Geographic criteria
        Region/area
        Town/city size
        Population density
        etc.
    (c) Psychographic criteria
        Social class
        Personality styles
        Lifestyles
        Values/ beliefs
        etc.
    (d) Behavioral criteria
        Purchase occasions
        User status
        Usage rate
        Brand loyalty
        Willingness to buy
        etc.
2. **Segmentation criteria industrial goods markets (excerpt)**
    (e) Demographic criteria
        Industries
        Company size
        Location
        Revenue/profitability
        Growth rate
        etc.
    (f) Procurement-related criteria
        Procurement policy
        Power structures

      Purchase criteria
      Organizational form
      etc.

(g) **Personal criteria**
      Risk-taking
      Supplier loyalty
      Partnership behavior
      etc.

(h) **Operational criteria**
      Technology
      User status
      Customer competence
      Urgency
      Scope of the order
      Customer contribution margin
      etc.

However, the determination of market segments according to these criteria (individual criteria or a combination of several criteria) does not usually result in homogeneous groups or market segments. In practice, the determination of homogeneous groups is carried out by using various statistical procedures. A simple procedure that you can use to obtain market segments is cross tabulation. To do this, you ask market research to collect customer needs such as buying motives, customer needs, requirements and buying behavior and also segmentation criteria such as age, gender, household size, disposable income, place of residence, occupation, education, and so on. This creates the basis for the application of cross tabulation, in which you compare the customer needs with the segmentation criteria.

The cross-tabulation procedure shows you which customer needs correlate strongly or weakly with which segmentation criteria. In the example in Fig. 3, there is a customer segment in which friendliness is an important purchase criterion and which consists primarily of people who.

- are 50 years and older,
- are predominantly female, and
- who have an above-average level of disposable income.

In practice, you will usually not find a clear demarcation between the market segments. The correlation coefficients are used to estimate the homogeneity and thus the overlapping effects when evaluating the market segments.

You need to review the market segmentation regularly, as customer needs can change over time. It is also possible for new market segments to emerge, caused by trends and developments in the market that favor the emergence of new customer needs.

The market segmentation of a product manager in the pharmaceutical industry is shown in Table 1.

Segmentation criteria		Needs/requirements	Friendliness	Professional advice	Accessibility	⋮
Age		14-29	5%	5%		
		30-39	5%	30%		
		40-49	20%	40%		
		50-59	30%	15%		
		60+	40%	10%		
Gender		Male	40%	70%		
		Female	60%	30%		
Household income		up to 1000	20%	40%		
		1000-2000	30%	30%		
		above 2000	50%	30%		

Fig. 3 Basic principle of cross tabulation (extract)

Table 1 Market segmentation of a product market (excerpt)

Market segment	Size (%)	Characterization
Experimentalists	18	Is willing to use new drugs and treatments, considers pharmaceutical consultants as a source of new information
Progressives	21	Positive attitude towards clinical trials/tests, open to new treatments
Satisfied	19	Does not see the value of pharmaceutical consultants, is satisfied with conventional treatment methods
Disillusioned	13	Became a doctor out of idealism, disappointed with new products but looking for products to improve the health of his patients
Overstressed	13	Has too much work, is demotivated, has no time to read studies, uses above average prescription drugs
Academics	16	Appreciates formal methods in education and training, continuously educates himself, uses generic drugs, does not use new drugs spontaneously

This market segmentation (physician segments) is used by a product manager from the pharmaceutical industry, responsible for products in the area of respiratory diseases. The market segments were given appropriate names and characterized accordingly. The size of the segment was expressed as a percentage of the total market. When reviewing the market segments, initial insights for product marketing already emerge:

- The market segments "satisfied" and "academics" (possibly also the market segment "disillusioned") are not particularly well suited for the launch of new products.
- Information in the form of studies or via discussions with pharmaceutical consultants is particularly relevant in the market segments "experimentalists", "progressives" and possibly "academics".

Next, review the market segments found by the cross-tabulation method with respect to the following criteria:

- Relevance to buying behavior/customer needs
- Use of measurable/determinable criteria
- Temporal stability of the market segment over a longer period of time
- Reachability of customers in the market segment (e.g. through marketing mix measures)
- Ensuring that the segment can be economically utilized (size)

In addition, you can also build market segment portfolio models to evaluate the individual market segments for your product market.

1.1.2   Market Segmentation Strategies

Market segmentation also provides you with some advantages from a strategic point of view. As a product manager, you can choose from four strategies for your product strategy

- Undifferentiated strategy
- Differentiated strategy
- Selective-differentiated strategy
- Concentrated strategy (niche strategy)

Undifferentiated Strategy

With the undifferentiated strategy, you do not consider the market segments that may exist in the product market. You put together a uniform strategy and marketing mix for the entire product market. If you examine the effects on the individual market segments, it is quite possible that in individual segments the strategy fits well and thus high market shares are achieved, while in other segments it is the other way round. Choose this strategy especially if there is low competitive intensity in your product market and you want to cover the entire product market right from the start (see Fig. 4).

If the intensity of competition increases, review the possibility of switching to the differentiated strategy.
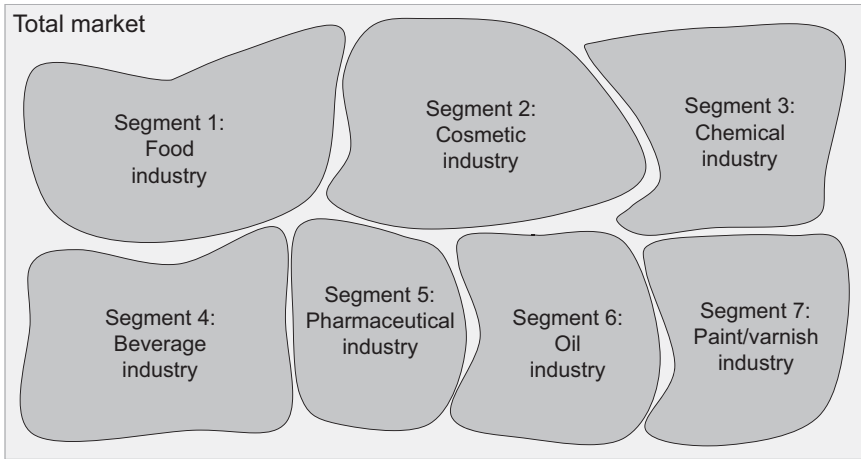
Fig. 4 Undifferentiated strategy in the product market.
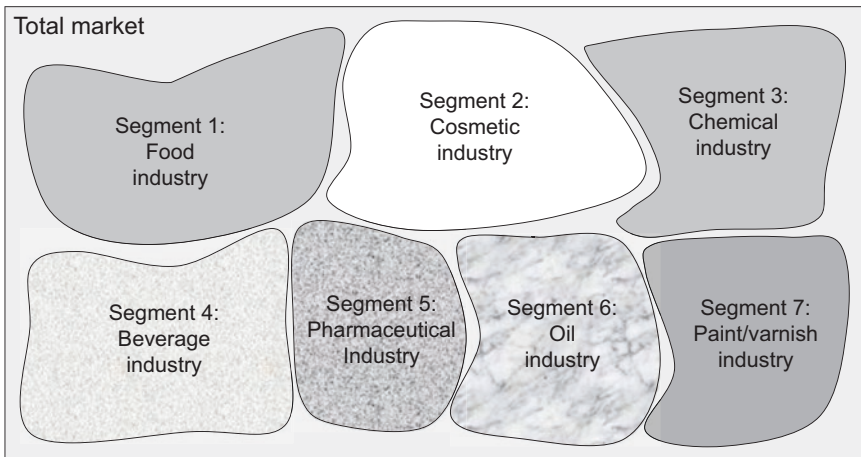
Fig. 5 Differentiated strategy in the product market

Differentiated Strategy

With this strategy alternative, you develop a separate strategy and a segment-specific marketing mix either for each individual market segment (fully differentiated strategy) or for individual segments (partially differentiated strategy) (see Fig. 5).

Since each market segment represents a homogeneous market segment, a strategy derived specifically for the market segment has much more impact than an undifferentiated strategy. Experiences of product managers from different industries show that market shares can be increased by 1.5–2.5 times per market segment with a differentiated strategy compared to an undifferentiated strategy. Of course, you have to expect that the differentiated strategy will incur significantly more costs (differentiation costs). As a product manager, you must compare the increased market share with the additional costs in each

individual case. To do this, you can prepare a separate profitability analysis for each strategy variant and compare the results.

The comparison in Table 2 (excerpt) shows which strategy elements or which elements of the marketing mix can be differentiated.

Which strategy elements are differentiated and which are kept undifferentiated must be determined individually for each product and market. When making this decision, you must consider not only the criterion of the segment-specific fit of the marketing mix, but also the possibly high differentiation costs (e.g. in the case of product differentiation).

Selective-Differentiated Strategy

The selective-differentiated strategy is a hybrid of the undifferentiated and differentiated strategies. When quantitatively evaluating strategies, you may sometimes find that it is worthwhile to differentiate for some market segments, but for the remaining market segments, the additional costs will not generate enough additional revenue. In this case, you can differentiate the appropriate segments and handle the rest with an undifferentiated strategy.

> **Example: Change of strategy in market development**
>
> The product manager of an American company from the pharmaceutical industry had the task of launching a product (food supplement) into the European market. The life cycle in this product market was already in the maturity/saturation phase. The market growth was about four percent per year. The ambitious goal was to achieve a market share of 30%. Of course, this could only be achieved through strong predatory action against competition.
>
> In the first phase, an undifferentiated strategy was pursued. There was one product with a central benefit message in three package sizes with conventional consumer-oriented mass media (print/TV/radio).

Table 2 Differentiation of the marketing mix (excerpt)

Marketing mix	Undifferentiated strategy	Differentiated strategy
Unique selling proposition (USP)	Central USP for the entire product market	Individual USPs per market segment
Product	Uniform product for the entire market	Product differentiation per segment
Assortment	Uniform assortment for the entire market	Different product ranges per segment
Prices, terms and conditions	Uniform price and condition model	Price differentiation and segment-specific conditions
Advertising media	Placement of product advertising in media that are read by everyone in the market	Placement in segment-specific media (e.g. industry trade journals)
Service	Uniform range of services	Differentiated service levels per segment

In the run-up to the product launch, an agency analyzed and evaluated the marketing budget of the competition. The product manager decided to enter the market with approximately one and a half times the marketing budget of the competitor established in this market. Too little, as the market research results showed. At twelve percent, the market share achieved was far below expectations.

For the second phase, which was now necessary, a selective-differentiated strategy was developed. The product market was segmented and four market segments were selected, which were now to be addressed in a differentiated manner. The remaining market was approached in an undifferentiated manner (selective-differentiated strategy).

The market segments addressed with a differentiated strategy were:

- Children/youth
- Older persons/seniors
- Sporty active
- Performance oriented

The necessary differentiation was mainly made in the product (concentration of ingredients), in the packaging, in the communication and in the benefit message. Although the required market share was almost achieved (28%), the differentiation costs were considerable and the product was unable to achieve the expected contribution margin results.

Concentrated Strategy (Niche Strategy)

In the concentrated strategy or niche strategy shown in Fig. 6, you only work one market segment (concentrated). Choose this strategy especially if your product market is dominated by a strong competitor and your deployed budget is not sufficient for an attack on the overall market.
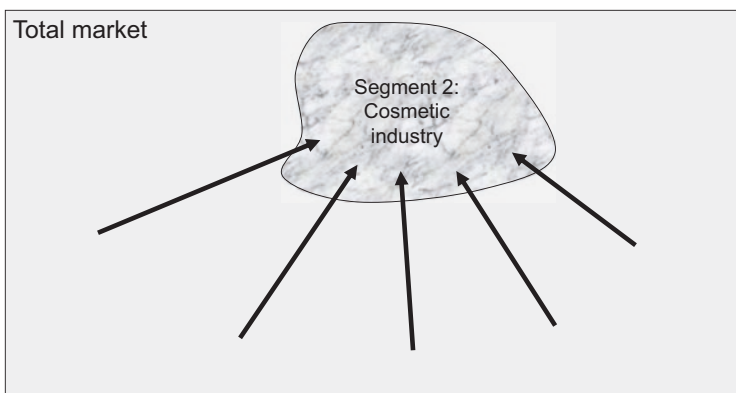
Fig. 6 Concentrated strategy (niche strategy)

Here you work according to the following principle:

There are no budgets that are too small, there are only attack areas that are too large.

Experiences from product managers show again and again that for a successful frontal attack of a competitor, the budget used (marketing budget) must be two to four times the budget of the competitor. Only with this budget concentration is it possible for you to break the position of the defender. If you cannot raise this budget, the attack area must be reduced, i.e. you concentrate on a submarket or a market niche. But the principle of budget superiority also applies in the market niche chosen in this way.

The niche strategy is also a popular strategy when launching products in new markets where there are usually already established competitors. But also risk considerations in an overall market coverage make a concentrated strategy, at least for the first step, seem attractive. By entering the market via the niche, you create a kind of "bridgehead". Following the conquest of the niche, you can take the other market segments step by step.

Of course, with the focused strategy, you develop a segment-specific strategy for the chosen market segment and tailor your entire marketing mix to the segment. Not only does this allow you to better align your product performance with the needs of the customers in the segment, it also allows you to more specifically align the rest of your marketing mix with the customer, thus achieving more impact.

Again, you can support the selection of the market segment for the niche strategy with a market segment portfolio. A product manager from the food industry (food supplements) only takes the size and growth rates of the individual market segments relative to the overall market as a selection criterion. The example from the food supplement sector in Fig. 7 shows that individual market segments usually have above-average growth rates compared to the overall market.

The application and implementation of the individual strategy options is illustrated by the following example from an industrial company.
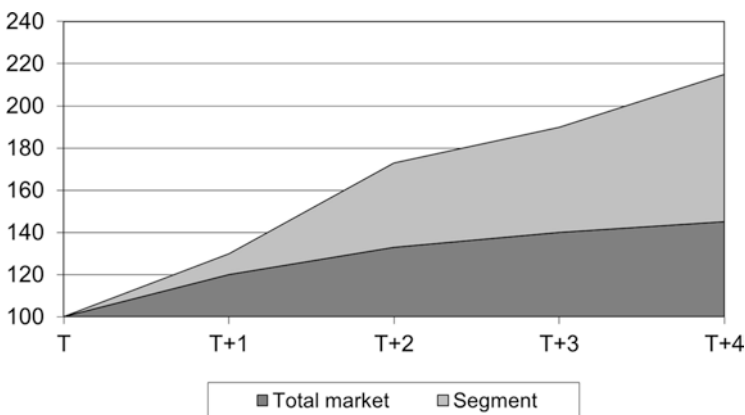
Fig. 7 Growth rates of a market niche compared to the overall market

Example: Market segmentation strategies in international product marketing

An internationally active product manager of a company in the industrial sector was responsible for tank gauges and systems. He was responsible for the revenue and contribution margins of this product group throughout Europe. As part of a strategy process in this product group, the individual countries and regions were strategically evaluated and prioritized through a country/region portfolio. Subsequently, individual strategies were to be developed and implemented for the individual countries/regions. The basis for these strategies was the division of the product market into market segments, which were structured according to the following industries (excerpt):

- Segment 1: Food industry
- Segment 2: Cosmetic industry
- Segment 3: Chemical industry
- Segment 4: Beverage industry
- Segment 5: Pharmaceutical industry
- Segment 6: Oil industry
- Segment 7: Paint/varnish industry

For each country, the segments were evaluated in terms of segment size and segment growth. It was then decided whether an undifferentiated strategy, a differentiated strategy or a concentrated strategy should be pursued per country/region.

A differentiated strategy was introduced in the four core/key markets (countries/regions), and the product launch in two countries/regions was completed by means of a concentrated strategy (niche strategy). The remaining countries/regions were covered by means of an undifferentiated strategy.

Figure 8 shows the assessment of the segments in terms of segment size and segment growth from the example shown. The circle size represents the own revenue.
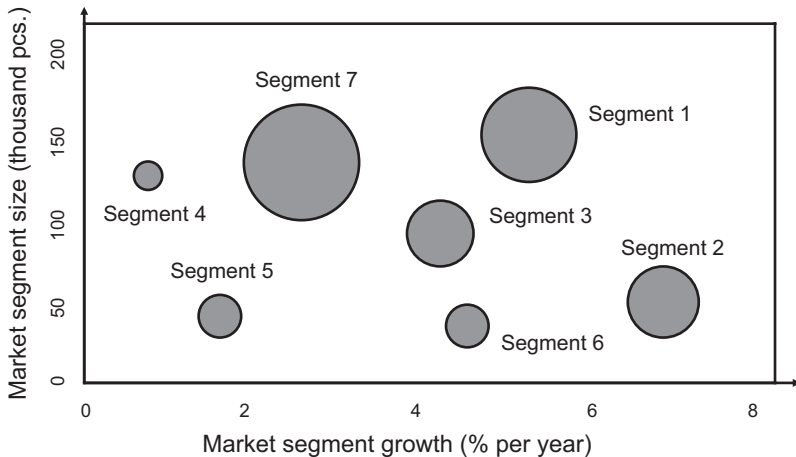
Fig. 8 Valuation of market segments

1.2   Product Segmentation

The approach to product segmentation is to find subgroups (product segments) that are relatively autonomous compared to other product segments. Note the following basic principle of product segmentation:

Product segmentation is product-oriented!

While market segmentation targets markets, product segmentation focuses on products (see Fig. 9).

For product segmentation, just as for market segmentation, you have a wide variety of segmentation criteria at your disposal. The product-related criteria depend very much on the respective product category (see Table 3).

1.2.1   Product Hierarchies

You can use the product segmentation criteria to create product hierarchies for your products. The product hierarchy tells you at which level it makes sense to start your product segmentation. Five levels are usually used to create a product hierarchy:
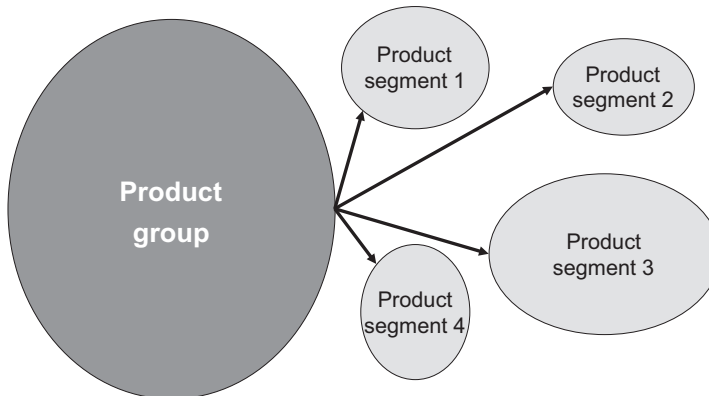
Fig. 9 Basic principle of product segmentation

Table 3 Segmentation criteria product segmentation (excerpt)

Product category	Segmentation criteria
Automotive	Motorization, equipment classes, model variants, performance classes ...
Card games	Topics, objectives of game (learning, entertainment, competition, etc.) ...
Grinding wheels	Applications, materials, disc sizes, shapes ...
Drugs	Package sizes, dosage and dosage forms, availability (over the counter OTC or prescription) ...
Luxury food	Color, flavor, dosage, package sizes ...

- **Level 1: Product family**
  Includes all product classes that cover a basic application or need (e.g. " Around the office").
- **Level 2: Product class**
  Includes all product lines between which there is a thematic connection (e.g. office supplies, office furnishings, office organization …).
- **Level 3: Product line**
  Includes all product groups whose application or mode of operation is similar (e.g. papers, writing instruments, drawing instruments …).
- **Level 4: Product group**
  Includes all articles of the same type (e.g. universal papers, labels, notepads, stationery …).
- **Level 5: Articles**

An article is a concrete form within a product group. It differs in various details from the other articles within the product group (e.g. format, weight, package size, color …). The product hierarchy shown in Fig. 10 illustrates the concrete contents and structures using the example of products from the office sector.

Product segmentation is mostly done at the product group level. More rarely, segmentation is found at the product line and article level. Since in practice there is no uniform designation for the different product levels, it is usually left to you as the product manager to find a useful structure.

You can also use the different segmentation criteria to create a product range profile of your products in comparison to the competition. For this analysis, you transfer relevant product characteristics (e.g. segmentation criteria at article level) into a two- or three-dimensional model. You then enter both your own articles and the competitor's articles into the model (see Fig. 11).
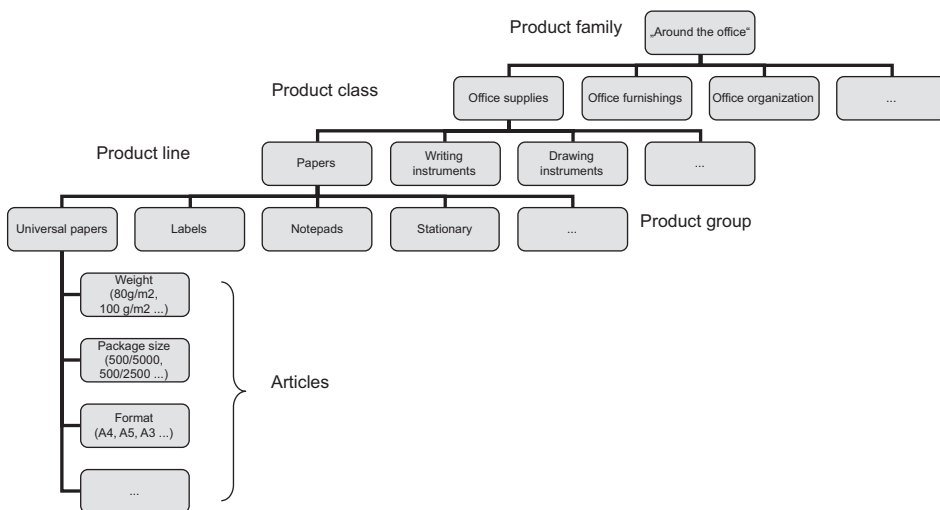
Fig. 10 Product hierarchy for office products
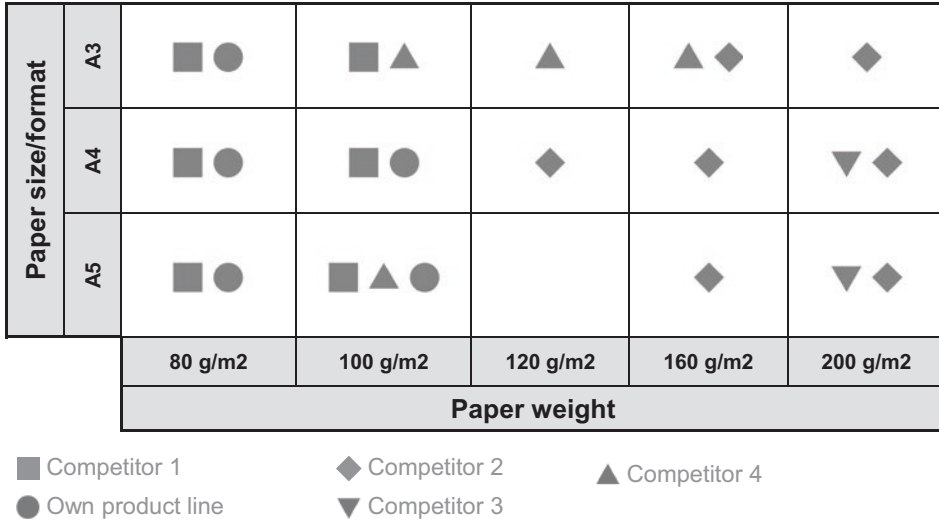
Fig. 11 Creation of product profiles using product segmentation criteria

Especially with a large number of articles and products, this model gives you a good help to identify gaps in the article structure and to estimate the intensity of competition. High competition intensity is to be assumed if many articles (products) can be found for a certain combination of segmentation criteria.

1.2.2   Revenue and Contribution Margin Analysis (ABC Analysis)

Each product segment identified through your product segmentation contributes differently to the total revenue and total contribution margin of your product group. As a product manager, you need to determine the percentage of total revenue and contribution margin that each product generates. The results of a product ABC analysis provide you with the basis for determining the optimal product or assortment structure. In most cases, the Pareto principle (80:20 rule) can be found in this revenue and contribution margin analysis (ABC analysis) (see Fig. 12).

Twenty percent of the articles in the product group achieve 80% of the total revenue of the product group. These articles are called A articles. Another 20% of the articles contribute only 10% to the total revenue (B articles). The rest, 60% of all articles, also called C articles, provide the rest of 10%. These empirical values are averages from different studies in different industries. The revenue and contribution margin distribution applicable to your own product group may differ from these values. It may well be that as little as 10% of all products in your product group account for 90% of total revenue. You can also find a less strong share of revenue of the A-articles in practice.

The ABC analysis performed by a category manager (product manager) in the consumer goods market for a product group is shown in Fig. 13.
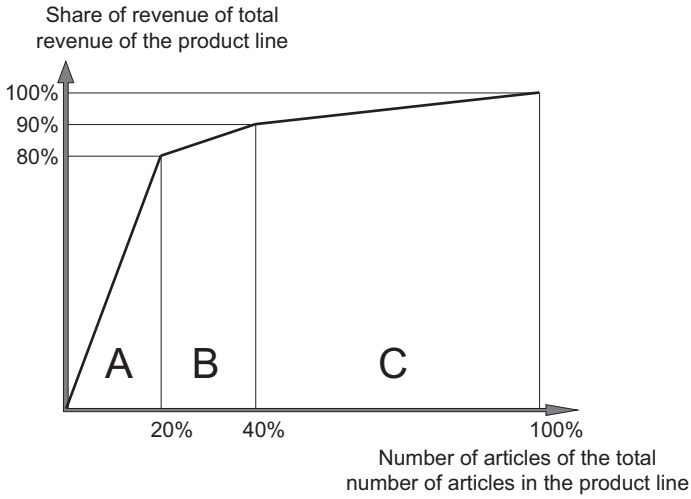
Fig. 12   Revenue and contribution margin analysis (ABC analysis)
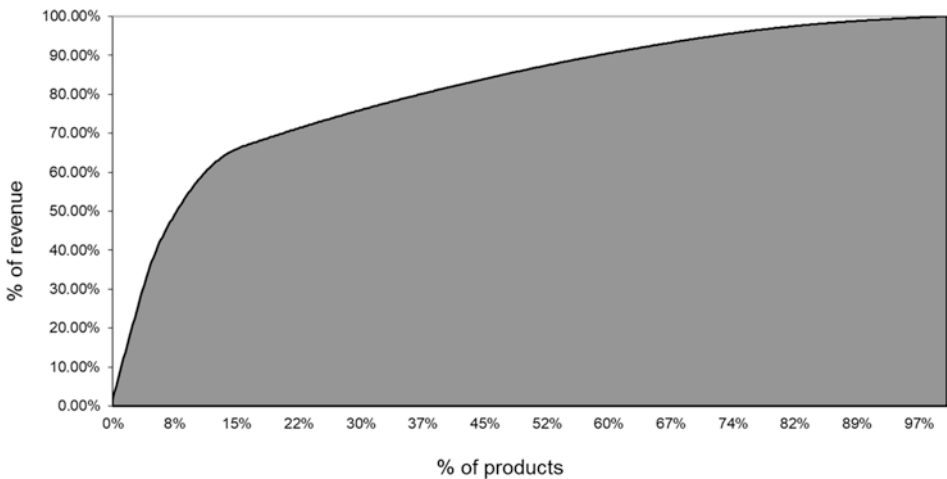
Fig. 13   Product-related ABC analysis of a product group

Sixty-five percent of the total revenue is achieved by 15% of all products. You can supplement the revenue-related ABC analysis with the contribution margin-related ABC analysis or at least a comparison of the contribution margin situation.

Figure 14 shows the revenue and contribution margin distribution of individual articles of a product group from the industrial sector.

In this example, 74% of the revenue and 85% of the contribution margin of the product group are achieved with article group 1 and 2.
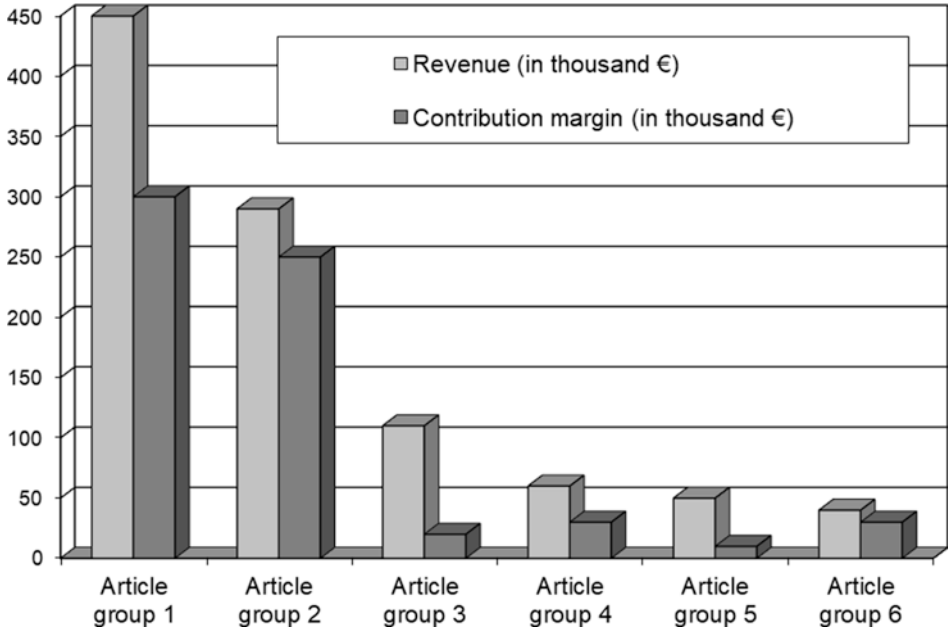
Fig. 14 Revenue and contribution margin distribution

Fig. 15 Comparison of risk
assessment and potential
consideration

Risk assessment

Potential consideration
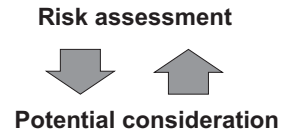
The insights gained through the ABC analysis based on your revenue and contribution margin primarily reflect the risk aspect in your product group. If individual high-revenue products from your product group are attacked by the competition, this represents a high risk for your entire product group. You must also compare the risk assessment (from the ABC analysis based on your own revenue) with the market volume aspect from an overall market perspective (potential consideration) (see Fig. 15).

A comparison of the product-related ABC analysis of your revenue in the product group with the total market-related market potential or market volume can result in the situation shown in Fig. 16.

A-products (from the revenue-related ABC analysis) may well be C-products from the perspective of the total market potential/volume and vice versa. If you want to use ABC analysis as a tool for program optimization you have to take this point of view (market view) into account.
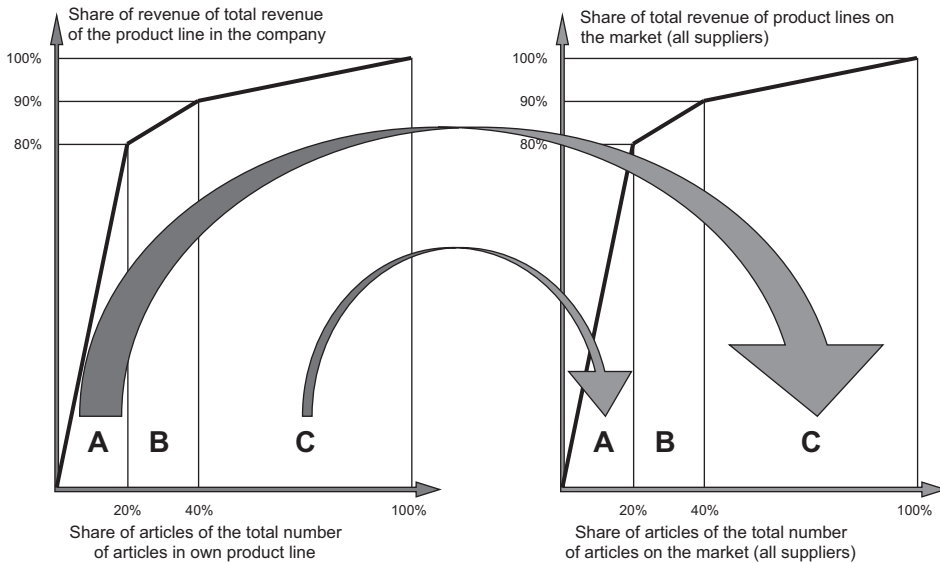
Fig. 16 Comparison of ABC analysis of own revenue and market potential

Use the following rules as rough guidelines during a program (range, assortment) optimization:

> The product group scope is too small if you as a product manager can increase contribution margin by adding new products/articles.
>   The product group scope is too large when you, as a product manager, can increase contribution margin by eliminating products/articles.

When adding and especially eliminating products/articles, you must also consider possible compound effects. A compound effect exists when customers buy your product and, in connection with the purchased product, also buy another product/article from your product group. For example, if a customer buys a hairspray, then he also buys 30% of the hair gel from this product group. The compound effect in this example is 30%.

The analysis of compound effects of a publishing house in the field of non-fiction and specialist books is shown in Fig. 17.

The ten book groups (1–10) are linked to varying degrees by economies of scope/compound effects. For example, book group 8 is linked to book group 4 by economies of scope, because 15% of the revenue in book group 8 are also used by customers for purchases in book group 4. If, for example, book group 8 is eliminated as part of a program streamlining this has a direct impact on sales in book group 4. As the product manager, you must determine compound effects accordingly and take them into account in the decision to streamlining and optimization of a product group.

Book group	... % of revenue in the product group...									
	1	2	3	4	5	6	7	8	9	10
1		4%	5%	20%	10%	2%	10%	4%	10%	4%
2	10%		9%	13%	3%	7%	15%	7%	6%	12%
3	5%	6%		3%	4%	12%	9%	3%	4%	14%
4	7%	9%	10%		2%	7%	3%	**15%**	1%	5%
5	10%	22%	21%	11%		9%	2%	6%	13%	7%
6	13%	24%	4%	10%	4%		6%	4%	6%	14%
7	23%	2%	5%	8%	1%	2%		2%	8%	9%
8	10%	9%	13%	4%	6%	6%	6%		9%	6%
9	16%	10%	12%	2%	2%	12%	2%	12%		15%
10	4%	11%	9%	5%	1%	6%	12%	6%	4%	

Fig. 17 Compound effects between products

Markets / Products	M1	M2	M3	M4	M5	M6	M7	M8	M9
P1									
P2									
P3									
P4									
P5									

Fig. 18 Structure of the product market matrix

1.3   Product Market Matrix

A simple tool for structuring product markets is the product market matrix. First you break down the market into individual market segments, then you do the same for your product group (product segmentation). Then compare the market segments with the product segments. The result is a two-dimensional matrix (see Fig. 18).

The product market matrix structuring tool is used both at the corporate level to define the business and by you as a product manager at the product level to structure your product market in detail.

The company-related application of the product market matrix is shown here using the example of a company from the construction supply industry.

Example: Business definition by means of product market matrix (corporate-level)
The company in the construction supply industry defines its own business activities (business definition) at company level as follows:

Market definition: Professional customers in commercial and industrial construction.
Product definition: Comprehensive problem-solving offer with consulting competence and services as well as limitation of the offer to products that are characterized by safety, quality, user-friendliness and innovation.

The market is clearly defined. This is also the reason why this company does not offer products and services for the consumer goods market.

The product definition is largely open. Only the criteria for the products that the company wants to keep in the product portfolio are specified. With this business definition, on the one hand there is a limitation for product management, on the other hand the development direction of the company is also clearly defined. The strategic options for the company are obtained by dividing the products and markets into existing products/markets (already worked on by the company) and new products/markets (not yet worked on by the company). This results in four strategic options for the company (see Fig. 19).

The corporate strategy of the construction supply company is characterized by a product development strategy. The market development strategy is excluded by the business definition. You structure the product market according to the same principles. However, the level of detail is much higher. The product market matrix of a product manager from the toy industry is shown in Fig. 20.

Product market combinations (also called planning units) are created by combining product and market segments. These are the smallest units of analysis, strategy development and product planning. If you cannot find any meaningful market and/or product segments, only one planning unit (total market and total product group) remains for your further considerations. In the product market matrix in Fig. 21 you can also clearly see the

Fig. 19 Strategy options in the product market matrix

Markets / Products	Existing markets	New markets
Existing products	Penetration	Market development
New products	Product development	Diversification
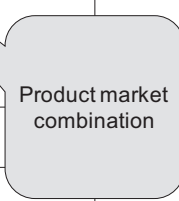
Fig. 20 Product market matrix at product level (excerpt)
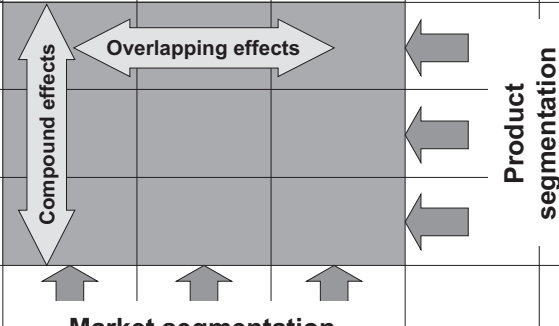
Fig. 21 Overlapping and compounding effects in the product market matrix

overlaps and dependencies that result from the combination of product and market segments.

Based on the product market matrix, you can now derive different strategies for your product market.

1.3.1 Product Market Coverage Strategies

With the product market coverage strategy, you as the product manager decide which planning units from the product market matrix are to be approached. Your decision is based on the different attractiveness and competitive situations for each planning unit.

Market segment / Card games	Children	Teenagers	Adults	Families	...
P1					
P2					
P3		▮			
P4					
...					

Fig. 22   Specialization strategy

Specialization Strategy

With the specialization strategy you concentrate on only one planning unit. With the specialization strategy you try to build up a strong position in the chosen planning unit. Concentrating on the planning unit teenagers with the specific card game (P3) is an example of this (see Fig. 22).

Selective Specialization Strategy

With this strategy, you, as the product manager, select several planning units after objective evaluation. Even if there are no or only minor correlations between the planning units, this does not matter. Here you try to identify and address particularly attractive planning units. From a risk point of view, this strategy has clear advantages over the specialization strategy. Your risk is spread over several planning units. Disadvantages may arise from the fact that you cannot achieve clear internal synergies between the individual products with this strategy variant and that no product structure in the sense of an assortment is recognizable from the market/customer perspective (see Fig. 23).

Market Segment Specialization Strategy

As a product manager, you specialize in one market segment and cover all planning units that fall into this market segment. You aim to be a specialist (market specialist) for this market segment (see Fig. 24).

With this strategy variant, you must pay particular attention to a clear definition of the market segment because of the possible market segment overlaps and the associated effects.

Market segment / Card games	Children	Teenagers	Adults	Families	...
P1	▓				
P2				▓	
P3		▓			
P4			▓		
...					

Fig. 23 Selective specialization strategy

Market segments / Card games	Children	Teenagers	Adults	Families	...
P1		▓			
P2		▓			
P3		▓			
P4		▓			
...		▓			

Fig. 24 Market segment specialization strategy.

Product Segment Specialization Strategy

Concentrating on a specific product segment that is marketed in all market segments forms the basis for this strategy variant. Through this strategy, you as a product manager build a strong position as a product specialist in one product segment (see Fig. 25).

With this strategy variant, you must also pay attention to the phenomenon of compound effects. The market and the customers increasingly demand the possibility to get "everything from one source". Especially with the trend towards reducing the number of suppliers on the customer side, this topic will remain critical.

Market segments Card games	Children	Teenagers	Adults	Families	...
P1					
P2					
P3	░	░	░	░	
P4					
...					

Fig. 25 Product segment specialization strategy.

Market segments Card games	Children	Teenagers	Adults	Families	...
P1	░	░	░	░	░
P2	░	░	░	░	░
P3	░	░	░	░	░
P4	░	░	░	░	░
...	░	░	░	░	░

Fig. 26 Full coverage strategy

Full Coverage Strategy

Here you strive to supply all market segments with all product segments. You aim for maximum coverage of both product and market segments (see Fig. 26). If you apply the ABC analysis according to revenue and contribution margin in this strategy variant, it could make sense to eliminate individual products from your product group in order to optimize the contribution margin overall. However, with the additional consideration of compound effects this can also result in a decrease in the remaining products.

1.3.2 Product Market Growth Strategies

Assuming that the product manager (responsible for card games) is currently only active in the planning unit "Children's P1", the following strategic growth opportunities arise (as far as not excluded by the company's business definition) in order to achieve a desired product market coverage or to increase performance for a given product market coverage (see Fig. 27).

Penetration Strategy

With this strategy, you as a product manager are trying to increase market share in the existing market with your current product or product group.

The product manager for card games can:

- encourage its existing customers to buy more packs (increase the rate of consumption or intensity of use),
- poach customers from the competition (generate brand changers) and/or
- target customers who were not previously card players but have similar characteristics to existing customers (potential expansion).

Market Development Strategy

In this strategy, as a product manager, you look for new markets that you can serve with your existing product or product group.

The product manager for card games can:

- identify and address new markets or market segments (checking whether they can be reached through existing distribution channels or whether new/additional distribution channels are needed) and/or
- serve new regional markets.

Markets Products	Existing markets	New markets
Existing products	Penetration	Market development
New products	Product development	Diversification

Fig. 27 Product market growth strategies

Product Development Strategy

In this strategy variant, you develop new products for the existing market.

The product manager for card games can:

- develop and market new card games (e.g. new themes, game variants, motifs …) and/or
- develop new technologies for card games (IT-based card games …).

Diversification Strategy

You choose diversification as a strategy if you want to work on a new product and a new market at the same time. Here you combine the strategy elements of the market development and the product development strategy. By adding the regional dimension, you get a three-dimensional representation of your product market. This three-dimensional matrix is mainly used in international product management and marketing, because the regional/geographical dimension is added (see Fig. 28).

In this model, you can not only map the structure of the product market well, but also store the relevant results (revenue, contribution margin …) and market figures (potential, volume …) for each planning unit (e.g. product P1, children & teenagers, UK). In addition, you can mark the planning units that you cover yourself and also mark the planning units that are covered by the competition. This gives you a quick overview of the competitor's product market coverage strategies.
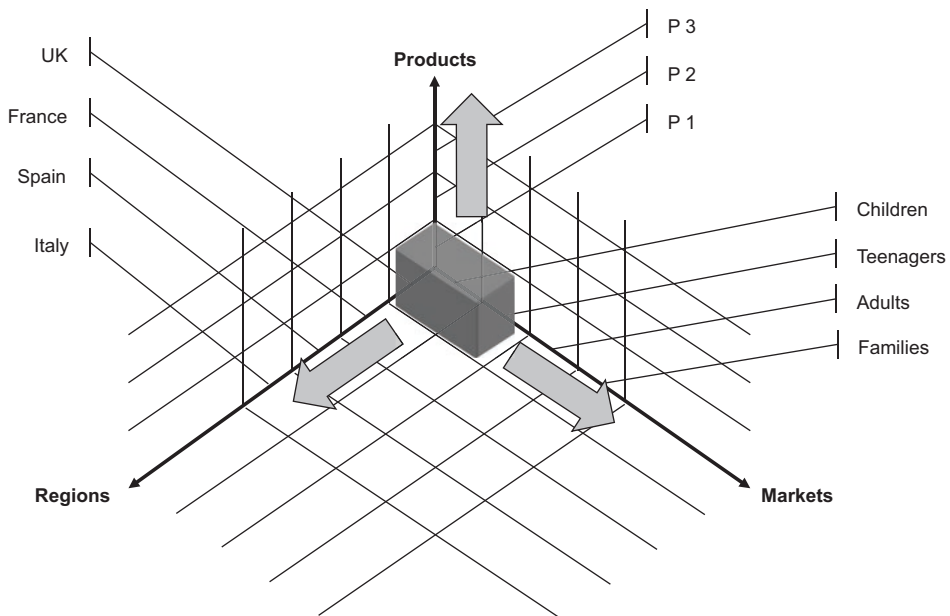
Fig. 28 Three-dimensional product market matrix

Example: Strategic decisions in the product market

Within the framework of annual strategy workshops of the management of a medical technology manufacturer with the product management, the new growth strategy of the company was presented by the management. After the presentation, there was an intensive discussion with the product managers, as they were asked to formulate and concretize their product-related contributions to the growth strategy and thus to the company's growth. The product managers were given the task of reviewing their previous goals and, above all, to reformulate, if necessary, the existing product strategies.

In one product area of the company, the product manager has so far pursued a very successful product segment specialization strategy. An internationalization has never been considered so far, one stayed in one's own country. Different strategy alternatives were developed and calculated in order to provide the appropriate contribution to the corporate strategy. It was agreed to stick to the product segment specialization strategy, but to strive for complete regional coverage in Europe (product market coverage strategy). The necessary regional market development strategy was divided into several steps for risk and cost reasons. In the first step, only one new country was to be added (regional niche) and only one market segment was to be developed there (market segment). In the second phase, the niche strategy was to be abandoned and differentiated marketing implemented. A similar strategy model was followed for the remaining countries.

As Fig. 29 shows, the four strategy options of the growth strategy are also associated with different expenditure/cost levels and probabilities of success in implementation.

Different experiences of product managers show that about 90–95% of all diversification strategies lead to a flop – this is mainly due to the extremely high expenditures for new product development on the one hand and due to the mostly unknown market in which all elements of the marketing mix have to be established first. In the case of the penetration strategy, at least every second strategy is successful. Experience also shows time and again that product managers leave the penetration strategy too early in order to enter new products or markets. The existing product market is not yet sufficiently developed and consolidated and represents an easy target for the competition.

	Probability of sucess	**Expenditure**
Diversification	low	Very high
Market development	medium	medium
Product development	medium	high
Penetration	high	low

Fig. 29 Expenditure levels and success probabilities of the growth strategies

1.4 Function Technology Matrix

The function technology matrix is another approach to disassemble and structuring the product market. In the function technology matrix, you break your product down even further into functions and technologies (see Fig. 30).

The breakdown of your product into functions and technologies provides you with additional information and starting points for defining your product markets and the relevant competitors as well as for developing product strategies.

When disassembling products into functions and technologies, you can apply the following questions:

> Which functions (basic functions) are fulfilled with my product for the market (customers)?
> With which technologies can these functions (basic functions) be fulfilled?

Note that functions are not always technical functions, and technologies in this context are not always related to the technical dimension.

If you want to break down the product coffee into functions for the customer, you may come up with the following functions, for example:

- Enjoyment function
- Keep awake function
- Social function (e.g. coffee party)
- Thirst quenching function
- Stimulation function
- etc.

If we look at technologies, we can talk about ingredients in coffee that are necessary for certain functions (e.g. caffeine for the keep awake function). However, other technologies/ingredients (e.g., the taurine used in energy drinks or corresponding ingredients in certain teas) can also provide the keep awake function. We have thus identified alternative technologies that may well be called technology competition for certain functions. You can also further classify technology (ingredient) into dosage forms here. You can take caffeine in coffee form as well as in chocolate form.

Fig. 30 Product disassembling into functions and technologies
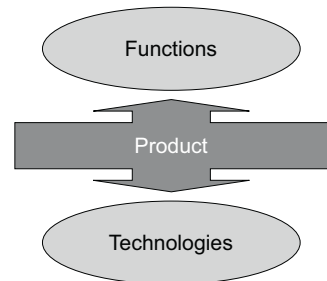
Example: Disassembling of a product into functions and technologies

A product manager developed various alternatives for planning units for structuring the product market. He was responsible for mechanical drills in the company. First he developed a product market model with the product market matrix.

For market segmentation, he used industries as a basis (automotive industry, construction industry, mechanical engineering, etc.). For product segmentation, the applications were taken as a basis (wood, stone, metal, etc.). The disassembling of the product according to functions and technologies yielded the following result: The basic function of a drill (making a hole) was quickly found. The search for different technologies to fulfill this hole-making function turned out to be somewhat more difficult. The following technologies were identified (excerpt):

- Mechanical technology (here also subdivided according to different materials)
- Optical technology (e.g. with laser)
- Chemical technology
- Liquid technology (e.g. with water)
- etc.

As part of the strategy development process, the problem of technology substitution was therefore also intensively addressed. The previous approach in the company's own industry was clearly directed against direct competition (mechanical drills). In the meantime, however, alternative technologies had pushed mechanical technology back in certain areas of application (technology substitution). Therefore, not only direct competition was identified as actual competition, but also indirect competitors with alternative technologies. The analysis of the product market had to be extended and new strategies for technology substitution and competition had to be found.

The structural model developed for this product market is shown in Fig. 31.
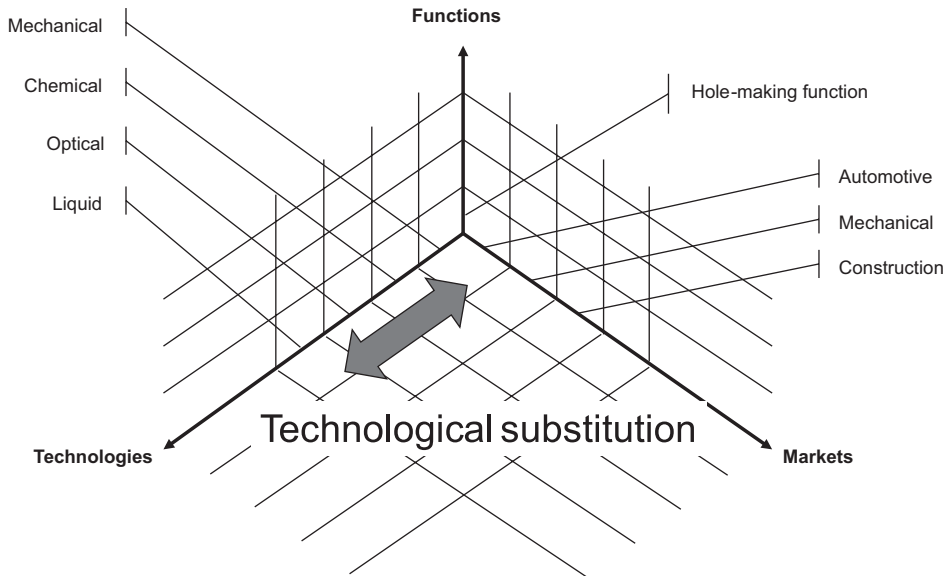
Fig. 31 Function technology matrix

With this three-dimensional representation you can also investigate the following questions:

Which functions are needed by which markets (and to what extent)?
Which technologies can be used to create the functions and to what extent?
Which technologies are (therefore) suitable for which markets?

With the insights gained, you can not only determine the product market structures, but also gain starting points for strategy development.

The resulting growth strategy options for you are

- New markets
- New functions
- New technologies

Figure 32 shows the extent of technology substitution from the industrial sector over a period of six years. The technology previously used by the product manager (technology 3) was substituted by alternative technologies (1 and 2) to such an extent that the market volume shrank by 60%.

Through early development and integration of alternative technologies by the product manager, it was possible to compensate for the effects on revenue and contribution margin of the product group. As part of this realignment of the product group, topics related to corporate strategy were also discussed.

2   Relevant for Success: The Most Important Control Variables for Product Marketing

When designing a product-related marketing mix, you should consider the control variables for product marketing. With the design of the control variables through the marketing mix, you not only have a significant influence on the product-related purchase decision processes at the customer, but also lay the foundation for a meaningful marketing controlling.
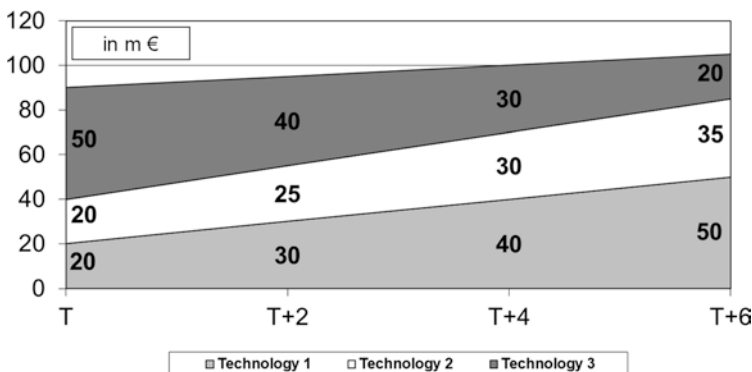
Fig. 32 Course of technology substitution in the product market

Very often, marketing controlling is built up exclusively on the basis of classic controlling information. Revenue and sales are determined, product-related fixed and variable costs are identified and product contribution margins are calculated. Although these figures are important for you, they usually have little influence on the customer's buying decision. When you design and define the control variables for product marketing, you can actively shape these variables and thus exert a targeted influence on the customers' product decisions.

As Fig. 33 shows, the variables awareness, brand image, product performance, price and relationship have an effect on the purchase decision and the customer's purchase decision process (before the purchase). The effect of each variable varies at different stages of the purchasing process. You must also take into account the type of purchase (new purchase, replacement purchase, etc.) and the duration of the purchase process (spontaneous purchase vs. longer purchase process) when designing the control variables. If this design is successful, the purchase decision in favor of your product is made and the classical controlling shows the results (revenue, contribution margin, etc.).

In addition to the control variables that play a role before the product decision, there are also control variables you have to take into account after the customer's purchase decision. These control variables are essentially the result of customer satisfaction, which occurs after the product purchase at the customer (see Fig. 34).

Reference potential (also called Recommendation Rate), Repurchase rate for Replacement purchases and Trust capital are results of Customer Satisfaction.

Before going into detail on the discussion of the individual control variables, it must be mentioned that in the design of these variables, the focus is not on action-oriented, tactical short-term measures, but rather on medium- and long-term measures and strategies that are needed in order to achieve a corresponding effect (see Fig. 35).
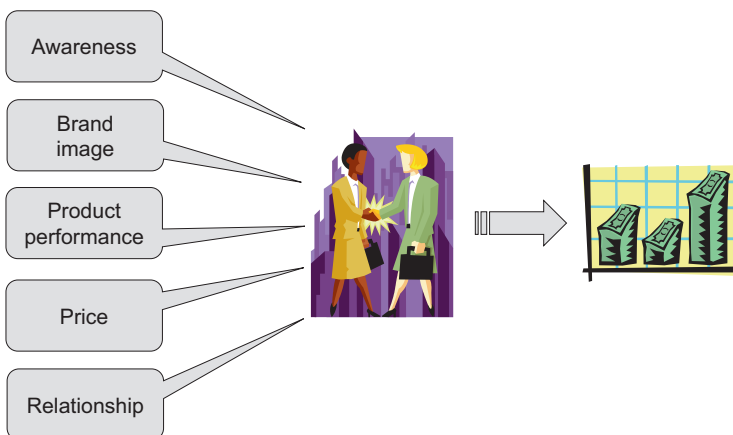
Fig. 33 Control variables in product marketing (before purchase)
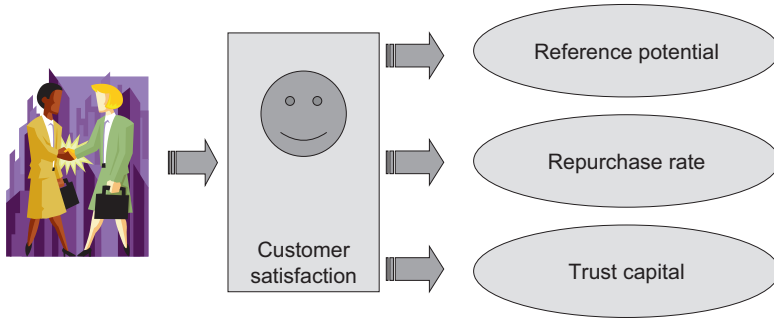
Fig. 34   Control variables in product marketing (after purchase)
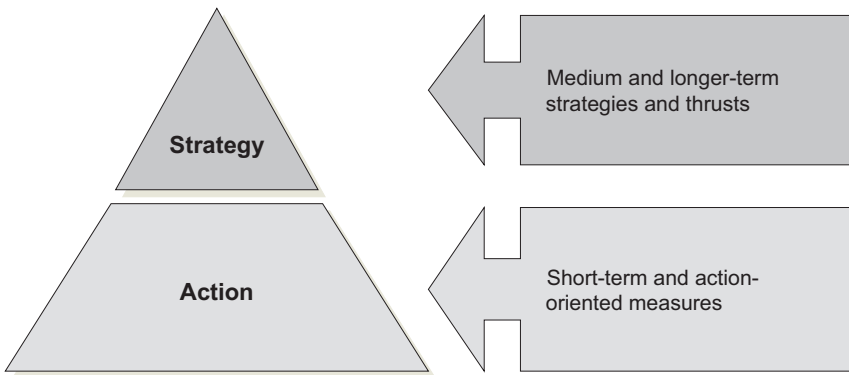
Fig. 35   Medium and long-term orientation in product marketing

If you as a product manager concentrate solely on the short-term level, this usually leads to price wars, shrinking revenues and expensive spontaneous promotions to adjust products and services at short notice.

Your focus on identifying existing and future market and customer needs provides the appropriate orientation for the future. Benefit innovations (new innovative products and services) and benefit advantages (differentiation from the competition and competitive edge) through medium and long-term strategies should be your focus. Experience from practical application shows that 80% of the revenue and contribution margin potential can be gained from the strategy level and only 20% from the action level.

NOTE

The control variables in product marketing described below are presented in a sequence for better understanding. In practice, these variables will accompany the customer in the purchase decision process in parallel and will have different significance depending on the purchase process phase.

2.1   Product and Brand Awareness

The level of awareness of a product or brand is of central importance as an entry point into the buying process for your product. Awareness is measured as a percentage. 40% awareness means that 40% of the people or companies in the target market know your brand or product. You determine awareness values through market research. When surveying the level of awareness, you must differentiate between the aided (supported) and unaided (unsupported) level of awareness.

Aided awareness is determined by interviewing people using a prepared list. The list of products and/or brands (with or without brand logo) is presented to the person to be interviewed.

No recall aids are used in determining the **unaided level of awareness.** The respondents are simply asked which products or brands they know in the respective product category or for specific applications. The spontaneous mentions are then evaluated.

It can be clearly seen that the awareness of the product or product brand is a decisive variable for the success of your product on the market. Other variables cannot be effective if this variable is too low for your product.

> **Example: Awareness of the product/brand**
>
>   A product manager for a mobile telecommunications provider was tasked with launching a new product. The product was not an own brand, but was marketed with the company's brand logo. The product manager had therefore not assigned any particular importance to the level of awareness of the umbrella brand (company brand) and the brand image in the product marketing. Although product awareness was promoted using relevant media, there was no clear focus on product awareness. By neglecting product awareness, the product launch became a flop. In retrospect, it was found that the critical awareness level of around 60–80% required in this product market was far from achieved (around 30%). The good product advantages and the excellent price-performance ratio were therefore not fully appreciated on the market.

If a company works with an umbrella brand strategy, a brand manager is usually responsible for the umbrella brand. In such a case, however, you as the product manager must still sufficiently promote your product-specific product awareness.

You can support the development of a sufficiently high product awareness through direct or indirect communication measures that have the following characteristics:

- High attention values
- High repetition rates

When a customer starts a buying process, the total number of products/offers on the market is usually hidden from the customer. The potential buyer will start the buying process with those products or brands he knows (awareness level). It can be considered as an exception if people or companies try to make a total survey of offered products and product alternatives in the market. The customer's approach to buying is shown in Fig. 36 as a step-by-step process.
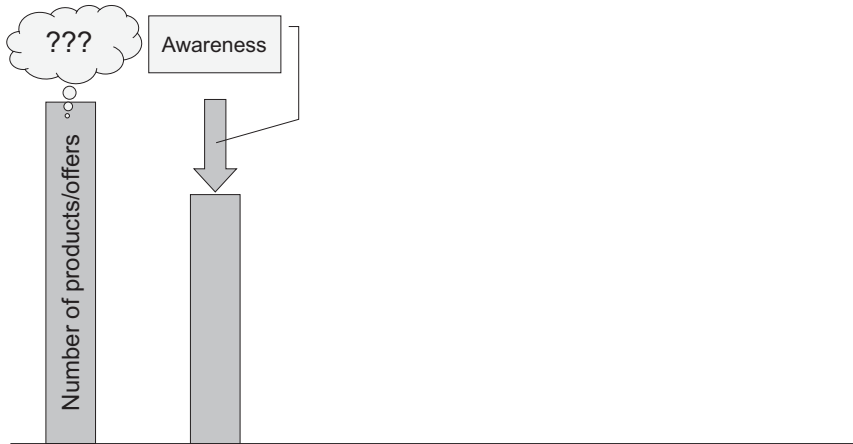
Fig. 36 Total number of products/offers and awareness

If, however, the number of known products or brands is too small to start a buying process, the customer will enter an explorative search phase, which he will, however, interrupt as soon as a critical number of products or brands is available for selection for the further buying process.

> **Example: Total number of product alternatives and critical number**
>
> The responsible buying center (persons involved in the purchasing decision process) in a company from the consumer goods industry had the task of procuring additional software as part of the introduction of a customer relationship management (CRM) system. The search process was stopped at about 15 products/suppliers found, as a sufficient number of product alternatives had thus been found for this company to continue the purchasing process. After the purchase decision for the product was made, a product overview was published in a trade magazine showing that there were currently around 90 product alternatives on the market.

2.2   Product Brand and Brand Image

In the next step of the buying process, the customer will select the alternatives (relevant set) that are relevant from the products or brands the customer is familiar with (see Fig. 37).

How many relevant product alternatives the customer chooses and which decision criteria are used is the focus of this phase of the decision-making process.

2.2.1   Number of Relevant Alternatives

Various studies and market research results repeatedly show that people or companies only select a few relevant alternatives. In average, values from the B2B area shown in Fig. 38, it can be seen that only four relevant alternatives are used in product decisions in around 80% of the cases.
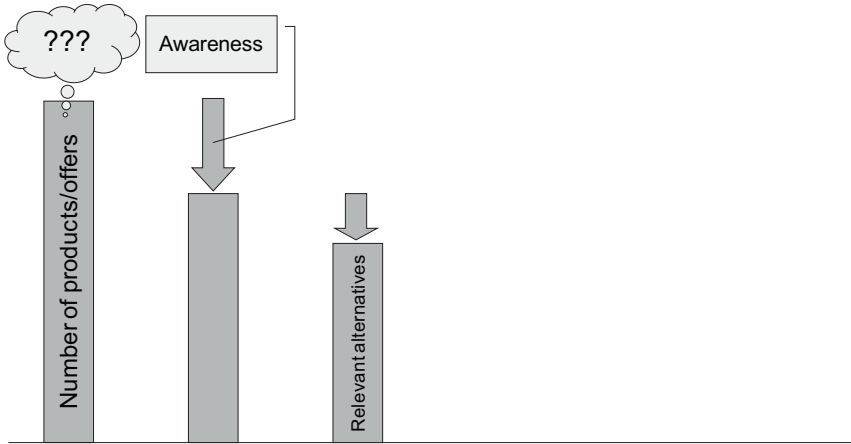
Fig. 37 Level of awareness and number of relevant alternatives

Fig. 38 Number of relevant alternatives in purchasing decisions
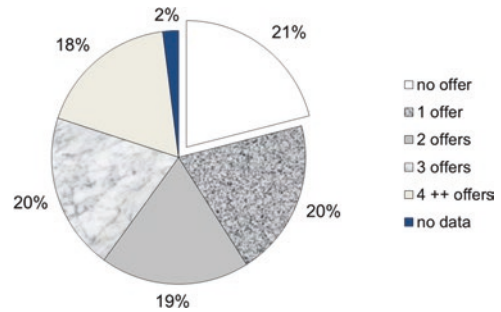
If you are already a supplier to a customer (no offer = existing supplier is chosen), this is no guarantee of success, because the customer will look at another three competitor offers and compare the products and services. The reduction to the number of relevant alternatives makes perfect sense for the customer, because with this restriction he determines which products or brands he will continue to deal with intensively. If you are not among the relevant alternatives, this also has an impact on your market share, as the example from the product market for consumer durables in Fig. 39 shows.

Four products (P1 to P4) already cover more than 70% of the market. The distribution of market share naturally depends on the maturity of the product market. Market share distributions as shown are mostly found in mature and saturated markets. In earlier phases of the product market life cycle, clear market share distributions are usually not as pronounced. As a product manager, you try to achieve market leadership in the product market in such initial situations by consistently applying market penetration strategies (see Fig. 40).

The successful market penetration strategy of a product manager from the consumer goods sector in a saturated product market is reflected in the dominant market share of over 40%. The relative market share to the strongest competitor results in 2.9!

Fig. 39 Number of relevant alternatives and impact on market shares

12%

7%

30%

9%

□P1
■P2
■P3
■P4
□P5
■P6
□Other

12%

17%

13%
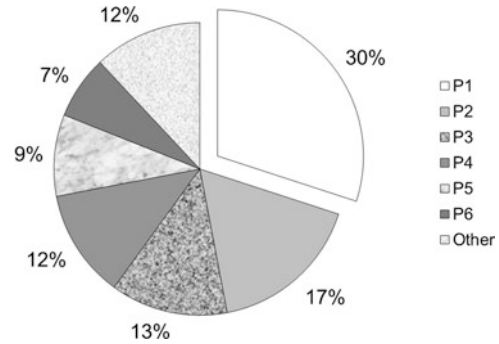
Fig. 40 Market leadership through market penetration strategies

7%

7%

8%

43%

□P1
■P2
■P3
■P4
□P5
■P6
□Other

10%

10%

15%
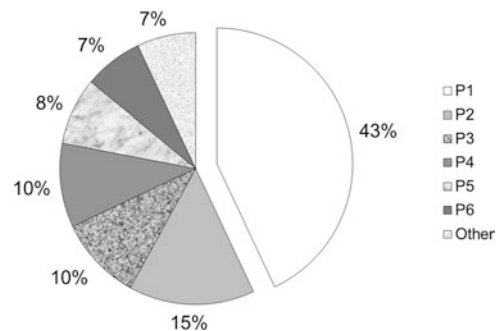
2.2.2 Building a Product/Brand Image

In order for your product/brand to be among the choices of relevant alternatives when making product decisions, you need to build and create a product or brand image (see Fig. 41).

The product or brand image is a subjective perception profile of a product or brand. Appropriate image advertising attributes properties to your product or brand that play a central role in this phase of the buying process (choice of relevant alternatives). You shape and influence the image through communication measures that aim at a subjective attribution of characteristics to your product or brand (image advertising). The image transfer from the image carrier to the product or brand is in the foreground here.

Simple product marking (e.g. through a product name or a classic word and/or image logo) is not sufficient for building a brand image. In addition to this product marking, you must ensure appropriate positioning and profiling of the brand (see Fig. 42).

Brand positioning and profiling includes all measures and strategies to build and maintain an image of your product or brand among your customers and potential customers. This is to ensure that your product or brand has a clear, distinct and independent place (position) relative to the competition in the perception space of your target customers.

These positioning and profiling components, which are important for brand building, are determined in practice by image analysis. In order to identify the current positioning of your product in the customer's perceptual space, conduct surveys that enable the person
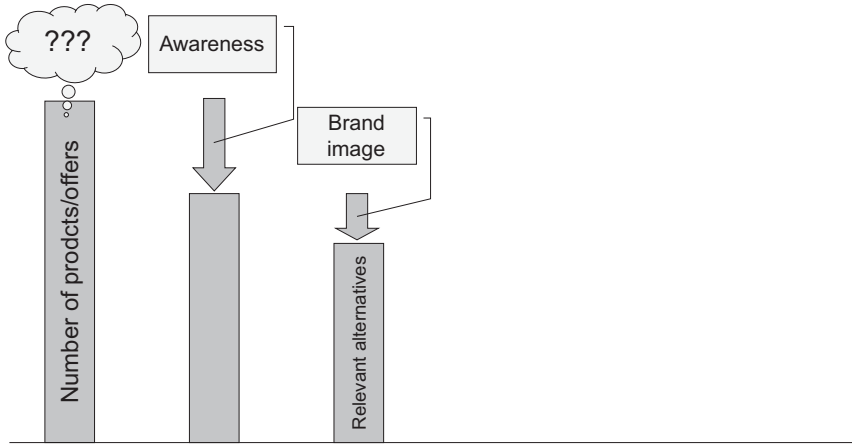
Fig. 41 Number of relevant alternatives and brand image

Fig. 42 Marking, positioning and profiling of a product brand
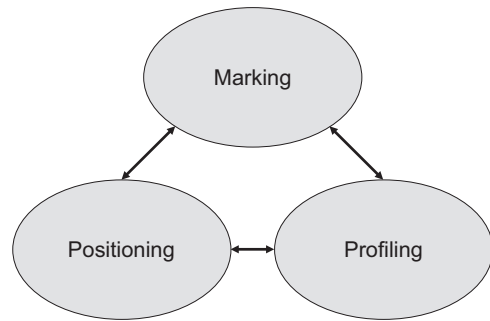
interviewed to assign criteria (characteristics) to your product or brand and also to indicate the strength of this assignment (see Fig. 43).

In this example, the positioning criteria dynamic and sporty were identified as the dominant criteria of the brand image. You can evaluate the values determined for the people surveyed and graphically display the resulting image profiles (see Fig. 44).

The example shown from the consumer goods market shows the positioning and profiling of a product brand in the specified criteria. Further criteria are necessary in any case for an overall presentation of the brand image. The individual black dots are the individual responses of the people surveyed. In this example, the brand is positioned with medium prestige values and high sportiness values. The profiling of the brand shows the dispersion of the points (perception field). A low dispersion is desirable because it gives the brand a clear brand profile and therefore a high impact (number of relevant alternatives). In addition, you must ensure that your brand has an independent position to competitor brands (see Fig. 45).

Evaluation criteria (characteristics)	Assignment	low - strengths of assignment - high					
		1	2	3	4	5	6
modern	⊗				X		
economical	O						
demanding	⊗			X			
dynamic	⊗						X
safe	O						
sporty	⊗					X	
competent	O						
flexible	O						
innovative	⊗				X		
progressive	⊗				X		
extrovert	O						

Fig. 43 Determining brand positioning and profiling
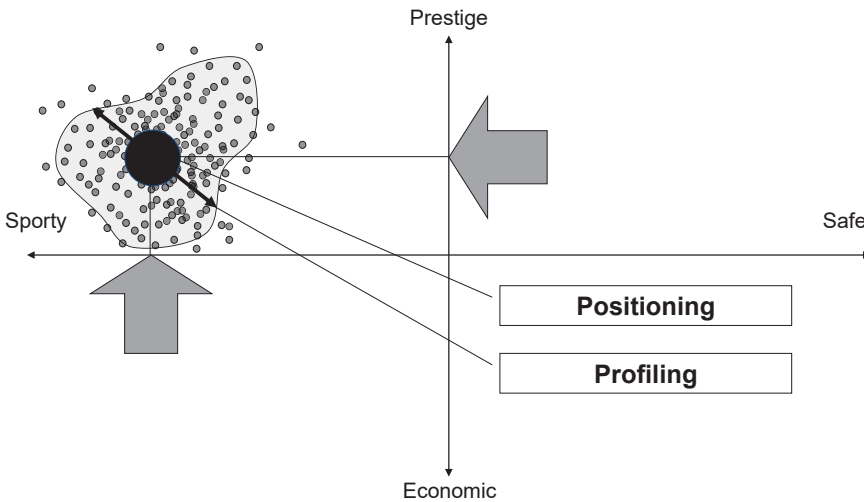
Fig. 44 Image profiles of products/brands (excerpt)

The positioning of the products (P1 to P7) clearly shows that the products P2, P3 and P4 do not have an independent position in the perception space of the respondents. The brand that has the strongest brand image will therefore win. In addition, there is also the possibility to reposition a product brand in the positioning gap "safe-economic" or to reposition an existing product brand.
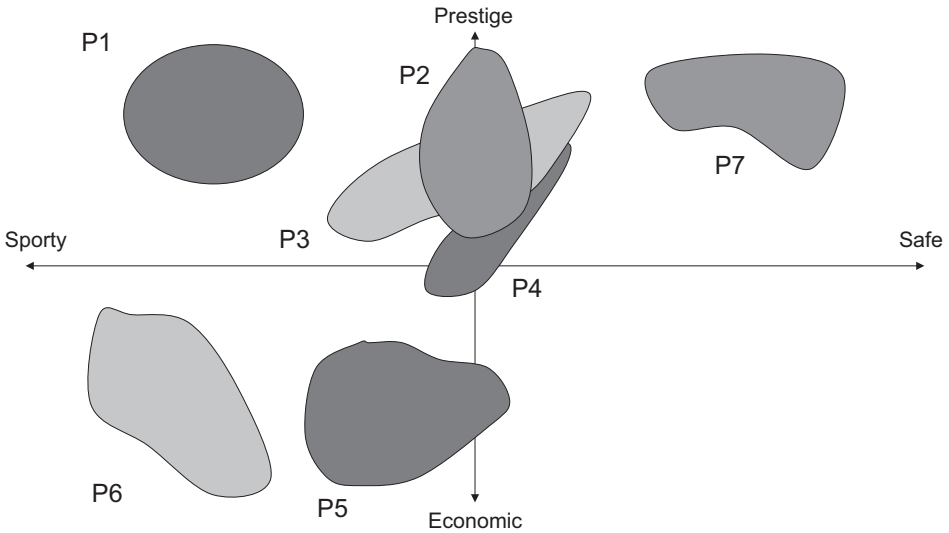
Fig. 45 Independent brand positioning in the competitive environment

Example: Repositioning of a product brand

When analyzing the information on attention level and advertising recall, the product manager of a beverage manufacturer realized that the values for the competitor's product (brand A) increased as much as their own values (brand B). When determining the expenditures for image advertising, it was also discovered that the competition had not increased its budget during the period under consideration. Only the company's own budget for image advertising increased. After additional analysis of the market research results together with the advertising agency, it became clear that the positioning of the own brand was almost identical to the competitor brand. However, since the brand image of the own product brand was weaker, the own image advertising was associated with the competition. The problem was solved by repositioning the own brand.

The study of the advertising recall and attention values of your own product brand and the competitor brand on which the example is based clearly shows the problem (see Fig. 46).

2.2.3 Market Segmentation and Product/Brand Image

When analyzing and defining the product/brand image, you as a product manager must also consider the segmentation of the product market. The connection between market segmentation and product/brand image is illustrated in Fig. 47.

In this example of a product from the consumer goods market, there are not only the products of the most important competitors positioned (the brand profile of the product brands has been omitted in this representation), but the personality profiles of the market segments from the segmentation of the product market are also drawn in.
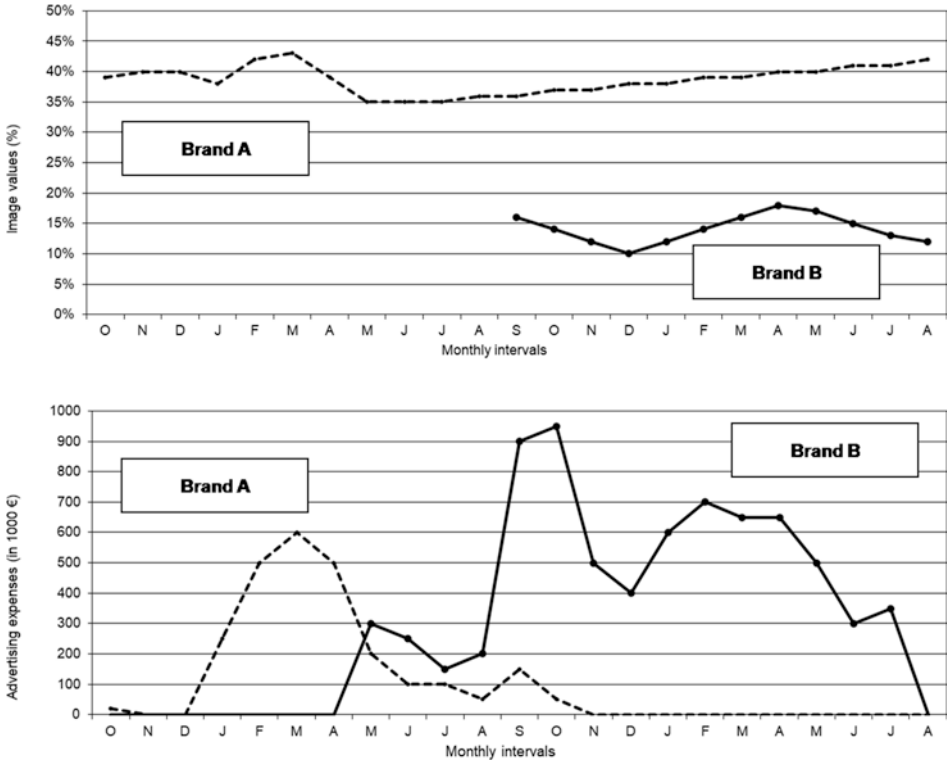
Fig. 46 Advertising recall and attention values (image values)
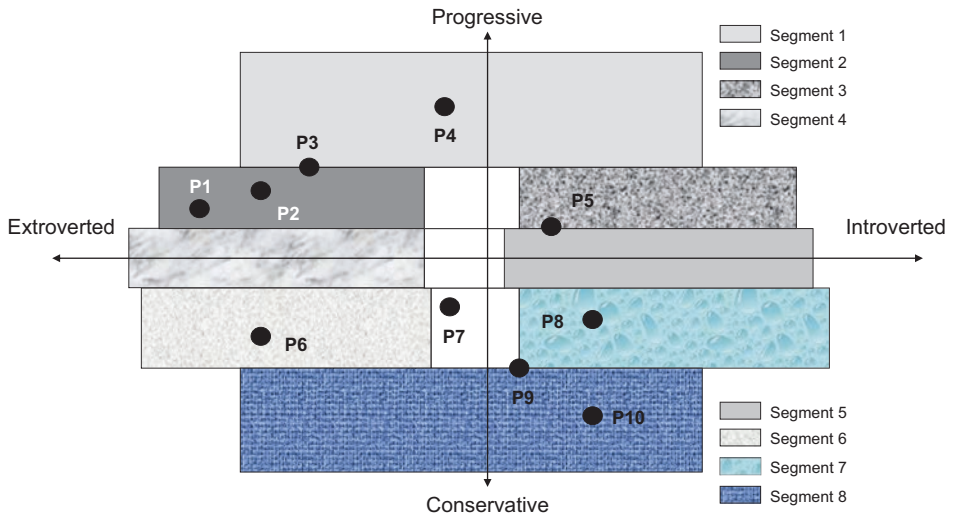
Fig. 47 Market segmentation and product/brand image

It can be seen that the products P1 and P2 are positioned in the dimensions "extroverted" and "progressive" as strongly/medium extroverted with a slight tendency towards the progressive. Market segment 2 is characterized by the personality profile of the people in the segment as extroverted with a slight leaning towards progressive. Here, the product/brand image matches the personality characteristics of the market segment. Products P1 and P2 as direct competitors will be among the relevant alternatives in the purchase decision in this segment. Clearly, P1 and P2 will definitely not belong to the relevant set (number of relevant alternatives) in segment 7.

You can determine the personality characteristics of persons in market segments by means of corresponding studies and market research. Make sure that in addition to the classic segmentation criteria, different personality dimensions are also queried or tested.

Such personality characteristics may include:

- Body/fashion orientation
- Diligence and sense of duty
- Domesticity and tradition
- Health and wellness
- Family orientation
- Homeland connection
- etc.

You assign the characteristics to the market segments and calculate the correlation from this. The personality profile of people in different market segments is shown in the example from a consumer goods product marketing research in Fig. 48.

Note the scaling here. The value 1 means a high relevance/assignment of the characteristic to the segment, the value 6 means a low relevance/assignment of the characteristic to the segment. When analyzing segments 1 and 2, you will find a clearly different characterization of the two market segments.

1. **Characterization of market segment 1:**
    – Individualistic
    – Socially participating
    – Assertiveness
    – Promotion and career motivation
    – Prestige aspirations
2. **Characterization of market segment 2:**
    – Coping with reality
    – Emotionally moved
    – Tenderness craving
    – Political engagement
    – Traditionalism

Criteria	Average	Market segments (extract)			
		1	2	3	4
Individualistic	3.3	2.8	3.5	3.4	2.9
Socially participating	3.3	2.9	4.0	3.9	3.0
Assertiveness	3.3	2.7	3.6	3.7	2.8
Coping with reality	3.7	3.0	4.0	3.9	2.9
Promotion and career motivation	3.6	2.6	3.7	3.5	2.4
Emotionally moved	3.6	2.3	3.6	3.8	2.1
Tenderness craving	3.9	3.7	3.6	4.4	3.9
Health awareness	3.3	3.5	3.7	3.8	3.5
Prestige aspirations	3.8	3.5	3.4	3.6	3.5
Political engagement	3.9	3.8	3.7	3.8	4.2
Traditionalism	3.4	3.7	3.6	3.5	3.8
Possessiveness	3.6	3.0	4.1	3.9	3.1

Fig. 48 Market segmentation and personality characteristics (excerpt)

2.3   Performance Advantage and Product Benefit

Once the customer has selected and determined the relevant product alternatives, they are compared with each other. The potential customer tries to identify the products or services which, from his point of view, have a performance advantage over the other relevant product alternatives (see Fig. 49).

2.3.1   Price or Performance Orientation

At this level of decision-making, however, you as a product manager must distinguish whether the customer is a price-oriented or a performance-oriented customer type. Both customer types differ in their purchasing behavior.

The Price-Oriented Customer

The price-sensitive or price-oriented customer is usually looking for a standard product (product includes all the customary features), but at a low price. A performance advantage will usually not be so relevant for this type of customer, and the customer will go directly into the price comparison.

> **Example: Price-oriented purchase decision**
> As part of a replacement procurement for some of the laboratory analysis equipment of a chemical company, the central purchasing department, together with those responsible from the laboratory departments, compiled the specification of the laboratory analysis equipment
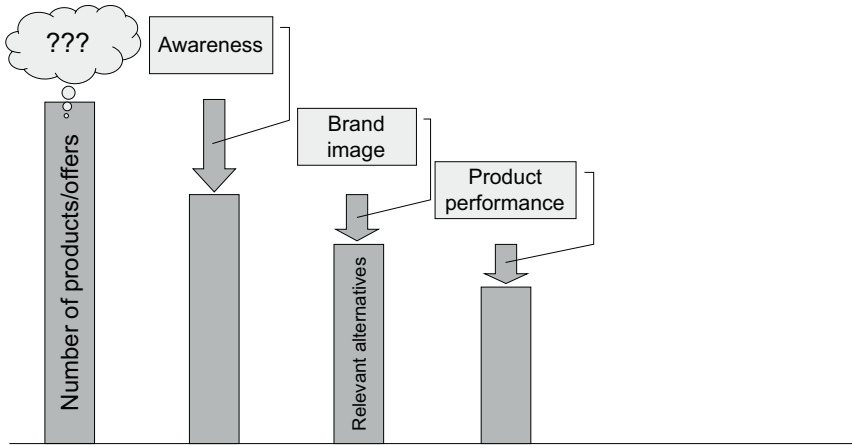
Fig. 49 Performance advantage and benefit comparison

to be procured. It turned out that the individual laboratories basically required the same stan-
dard applications. All products from the well-known manufacturers were able to cover this
requirement. As far as the services were concerned, it was also simply a matter of concluding
an SLA (Service Level Agreement) with standard services. Negotiations with the sales depart-
ment of the individual product suppliers were conducted purely on a price basis.

The Performance-Oriented Customer

Quality or performance-oriented customers (also called value-added customers) are spe-
cifically looking for additional benefits. This additional benefits can be either directly in
the product or also in the product-related services. This customer type is also prepared to
pay more for additional benefits.

With this type of customer, only that product offer will be successful which is rated as
subjectively superior to other product alternatives. The subjectivity of the assessment of
product performance is, similarly to the topic of brand image, of decisive importance.
Customers are not always in a position to make an objective assessment of product perfor-
mance. If this is not possible or reasonable for certain considerations (lack of know-how,
necessary time/cost expenditure, etc.), the customer definitely falls back on subjective
assessments and assumptions.

Therefore, it is crucial for your market success to be better than the competitive prod-
ucts in the perception of your potential customers. Only in this case your product or ser-
vice has a **USP (Unique Selling Proposition).**

In practice, you will not find a uniform terminology either. Often the USP (Unique
Selling Proposition) is also called **Unique Selling Point** or **Comparative Competitive
Advantage** (CCA).

The often found equation of the USP with the brand image should be avoided at all costs. Your USP or your CCA can be quickly copied by the competition and must be replaced by another advantage. In some product areas, USPs only have a lifespan of a few months. Brand image is a long-term positioning of a product brand and you will usually need several years to build it. Both factors also have different objectives in the customer buying process.

The USP should also in no way be equated with or replaced by the **Strategic Success Position (SSP).** The SSP approach is a topic addressed by strategic management at the corporate or business unit level. Strategic Success Positions (SSP) are important dominant capabilities and/or skills (core competencies) that are consciously built up in the company or business unit in order to be able to achieve above-average results in the long term compared to the competition/industry average.

> **Example: Quality-/performance-oriented purchase decision**
>
> When searching for a digital camcorder to meet his individual needs, an amateur videographer put together his specific requirements. He soon realized that the various offerings and models had significant differences in terms of the following criteria:
>
> - Battery power
> - Image editing programs
> - Image quality
> - Light sensitivity
> - Backlight
> - Viewfinder/display
> - Handling
> - Connections/interfaces
> - File formats
>
> When evaluating the different digital camcorders (he had shortlisted five relevant alternatives), one model emerged as the clear winner with clear performance advantages. His evaluation was supported by trade magazines and colleagues who also pursued this hobby. This model best met his requirements. The price difference was about 15% compared to the other models.

Of course, in practice you will not find a fixed and stable ratio between price-sensitive and quality-sensitive customers. Depending on the market and competitive situation, the ratio varies and changes over time (see Fig. 50).

The example from the telecommunications industry shows you the distribution of price- and performance- sensitive customers at the beginning of the product launch and at the end of the product life cycle. This distribution is based on the fact that part of the customers derive their purchase preference for new products from their previous purchase behavior for similar products. There is, of course, a large proportion of indifferent
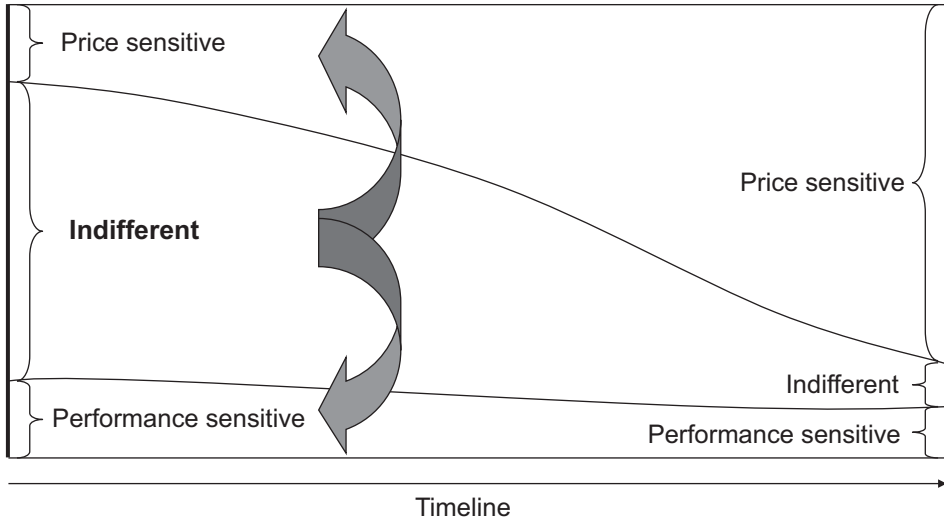
Fig. 50 Ratio of price-sensitive and performance-sensitive customers

customers at the beginning, who do not yet know whether a price or quality product is right for them. These indifferent customers will be influenced by

- the testing of the products and/or
- the intensive information about the products

when choosing the price-sensitive or quality-sensitive approach. At an advanced stage of the product life cycle, a clearer distribution of quality/performance and price will form. This has special significance for the development of a product strategy. As product manager you must decide whether

- a price strategy,
- a quality/performance strategy or
- a two-brand or multi-brand strategy

makes sense (see Fig. 51).

Experiences of product managers show time and again that a clear commitment to one of the two strategies is promising. The middle position, also known as the Bermuda Triangle, is usually not particularly profitable compared to the other two positions. When the market environment is good, these middle positions will hold up relatively well. When there are setbacks in the market, for example due to economic influences, these middle positions usually slip very sharply in terms of sales and market share.

Example: Introduction of a two-brand strategy

The product manager of a manufacturer of consumer goods had to cope with the fact that the percentage of quality-sensitive customers in his product market had dropped from about 35% to about 25% in recent years. The previous quality strategy was successful against the
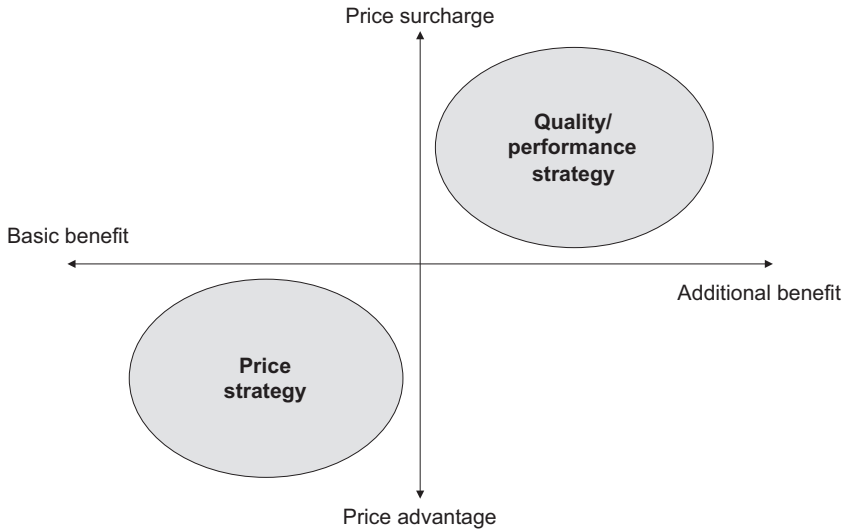
Fig. 51   Price or quality/performance strategy

other quality competitors (market share in the quality market of about 40%), but the strong shrinking of this market led to problems with the revenue development of the product.

Various strategy variants were developed and evaluated in the product team, and it was decided to introduce a secondary brand into the price-sensitive market. This brand was marketed and distributed completely separately from the existing brand. The new product for the price sensitive market included the same technology/mechanics, but the housing was redesigned and also only the basic functions were "routed out for operation". In addition, a new brand logo was developed for the product.

The use of the same technology/mechanics for both products (not apparent to the customer) led to a cost reduction via experience curve effects. Not only did the existing product range benefit from this, it was also possible to achieve the necessary cost position for the new product range, the second brand.

The principle of the experience curve states that unit costs fall as the quantities produced double. In the example of the durable good, the unit costs could be reduced by around 16% with a doubling of the quantities produced (see Fig. 52).

This cost reduction was mainly achieved through savings in the following areas:

- Purchase costs (machinery and materials)
- Automation and manufacturing processes
- Warehouse optimization (Just in Time – JIT)
- Process optimization

2.3.2   Product Benefit Analysis

With the product benefit analysis you have an effective instrument for identifying a USP. The decisive prerequisite for the application of the product benefit analysis in practice is a clear distinction between
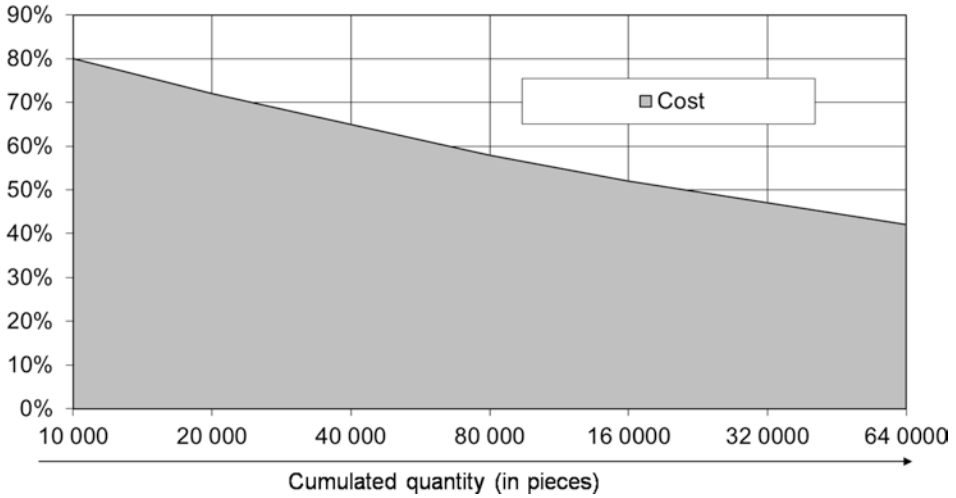
Fig. 52 Experience curve effects and cost reduction

Customer need	Feature	Product benefit	Proof
Increase of productivity	Computer control	Increased productivity (between 15 and 25 percent)	Article in trade journal
Reduction of complaints	Computer control, error indexing system	Decrease in complaints (between 20 and 30 percent)	References from customers, error logs
Sound purchase decision	Free requirement analysis	No wrong decisions	Sample needs analysis
Reduction of downtime	24h repair service	Reduction of downtime up to 25 percent	Article in trade journal

Fig. 53 Basic principle of product benefit analysis (excerpt)

- customer need,
- feature,
- product benefit and
- proof.

The product benefit analysis of a product manager responsible for the product group machine tools shown in Fig. 53 illustrates the principle. The following definitions apply to clarify the delimitation of the relevant criteria:

Customer Needs

In the customer need column, you enter the customer needs that are relevant to the decision to purchase the product and the requirements of the customer during the purchasing process. You collect customer needs and requirements through market research. Customer needs are expressed in general terms. For example, your customer wants to increase their productivity, they want to reduce their complaint rate, they want to make an informed purchase decision, they want to reduce their downtime, etc. When compiling the customer needs, make sure that the level of detail is appropriately high. The customer need "ease of use" is too general and needs to be further detailed.

The level of detail should be such that you can define a measurement or target value for the customer need. The possibility of quantification by means of this measurement or target variable is crucial later on when defining your product benefit (see Fig. 54).

The detailing of the general customer need "ease of use" is achieved in this example by breaking it down into the three categories "reduction of training time", "reduction of operating errors" and "faster programming". Quantifiable measurement or target variables can be assigned to all three categories (see Table 4).

This important detailing and concretization of the customer's need is supported by another example (see Table 5).

Features

In the feature column, you list the properties and/or features

- of your product and
- your product-related services.

Fig. 54 Level of detail of customer needs
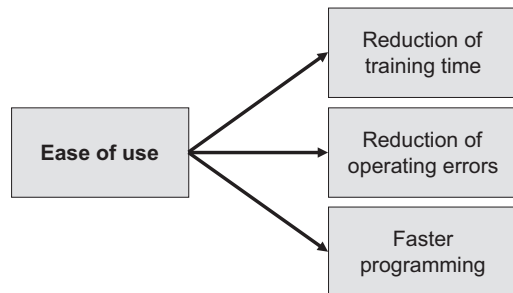
Table 4 Assignment of measured or target variables

Customer need	Measured or target variable
Reduction of the training time	Time (days, hours ...)
Reduction of the operating errors	Operating error rate as a percentage of operations
Faster programming	Time (days, hours ...)

Table 5 Level of detail of customer needs

Customer need	Detailed needs
Environmental friendliness	Low fuel consumption
	Low noise level
	Low emission values
	Recyclability

In doing so, you already assign the product features (properties/characteristics) to the customer needs. It may well be that you can assign a product feature to several customer needs and vice versa.

Examples of product-related features are:

- Aluminum (as material)
- Computer control
- Error indexing system
- Twelve-step height adjustment
- Hydraulic damping
- Air chamber insulation
- Direct injection
- etc.

Examples of service-related features include:

- 24-h-hotline
- Technical application service
- JIT delivery service
- Product training
- Installation service
- Remote diagnostic system
- etc.

In practice, there are always ambiguities and difficulties in distinguishing between customer needs and product/service features. The example of the garage door product for the B2B market in Fig. 55 illustrates this.

Technical application advice and on-site service are not customer needs, but features. However, it is often the case in market research that customers who are asked about customer needs respond with a list of features. In this case, you need to ask why the customer needs this feature. The answers to this will yield the underlying customer needs. To check whether it is a customer need or a feature, you can work with the following question:

What is guaranteed/ensured for the customer when he receives this feature?

Customer need	Feature	Product benefit	Proof
Technical application service	Worldwide distribution/service network		
On-site service	57 service centers in Germany		

Fig. 55 Customer needs versus features

Customer need	Feature	Product benefit	Proof
Low noise level	SDS (Sound Design System)	50% quieter than conventional projectors	Stiftung Warentest

Quantification
- Measurability
- Comparability

Fig. 56 Quantification of the product benefit

Product Benefits

In the product benefit column, enter the value that the feature of your product or product-related service has for satisfying the customer's need. You can use the following definition as a guide:

> **The product benefit**
> is the extent to which the feature satisfies the customer need!

When defining the product benefit, make sure that it is sufficiently quantified! The example from the consumer electronics product area (projector for home cinema entertainment) in Fig. 56 shows this quantification.

Of course, in practice you analyze several customer needs. For the sake of simplicity, only one customer need has been presented here.

You can quantify the product benefit by:

- absolute quantification of the product benefit (e.g. by specifying the decibel values of one's own product).
- relative quantification compared to the competitor product (e.g. 50% lower noise emission compared to the competitor product).
- the relative quantification compared to its own predecessor product.

- relative quantification compared to another technology or to other product categories, as in the example shown (50% quieter than conventional beamers).

The quantification of the product benefit is important for the customer, so that the product benefit becomes measurable and thus comparable with the competitive product.

A quantification that is not sufficient is shown by the product benefit analysis of the garage door product for the B2B market in Fig. 57.

High durability is not a sufficient quantification of the product benefit. A quantification in years (e.g. ten years) would be easy to produce in this case.

The definition of the USP also results from the previous presentations.

The USP
   results from the product benefit comparison of your own product with the product benefit of the competitor's product.

To determine the product benefits, you perform product benefit analysis for both your own product and the competitor's product. Then you compare the determined product benefits. If the product benefits are sufficiently high, you have identified a USP for your product.

Customer need	Feature	Product benefit	Proof
Long life-time	T-construction, aluminum alloy, surface treatment	High durability	

Fig. 57 Lack of quantification of product benefits

Customer need	Feature	Product benefit	Proof
Low noise level	SDS (Sound Design System)	50% quieter than conventional projectors (XY dB-A)	Stiftung Warentest

USP

Customer need	Feature	Product benefit	Proof
Low noise level	SSDS (Super Sound Design System)	80% quieter than conventional projectors (AB dB-A)	Stiftung Warentest

Fig. 58 Product benefit comparison and USP
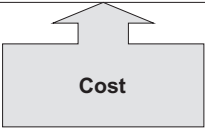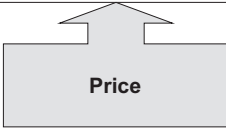
Customer need	Feature	Product benefit	Proof
Low noise level	SDS (Sound Design System)	50% quieter than conventional projectors (XY dB-A)	Stiftung Warentest
	Cost	Price	

Fig. 59 Product benefit versus price and cost

The example from the consumer electronics product area (projector for home cinema entertainment) in Fig. 58 shows the connection.

With the USP you also answer the question why the customer should buy your product and not the competitor's product. You should also check the relevance of your product benefits by asking whether the customer would be willing to pay a higher price for the higher product benefits. If the customer is not willing to do so, the higher product benefit is no longer relevant for the customer. The costs arise with the product through the features (see Fig. 59).

If the customer is not willing to pay more for the additional benefit despite higher costs (due to additional features), the typical syndrome of "over engineering" exists.

However, you can only provide the cost-generating features if the relevant problem-solving know-how is available in your company. As Fig. 60 shows, this problem-solving know-how is not only found in product development, but also in other product-relevant functional areas (e.g. service, logistics, design, packaging, application technology, etc.).

In summary, you can check the product benefits with the following questions:

- Is my product benefit measurable and comparable for the customer?
- Is the product benefit relevant to the customer?
- Is the product benefit dominant compared to the competitive product?
- Do the product benefits and competitive advantage have a longer-term impact?

Proof

In the proof column, you enter the proofs accepted by the customer. Product benefits can be doubted by the customer, and you as the product manager must provide the proof.

Examples of ways to prove your case include:

- Customer references
- Independent expert opinions
- Product tests from trade journals
- Own test reports
- Demonstration at the customer
- etc.

Citing one's own product advertising as proof is usually not enough.
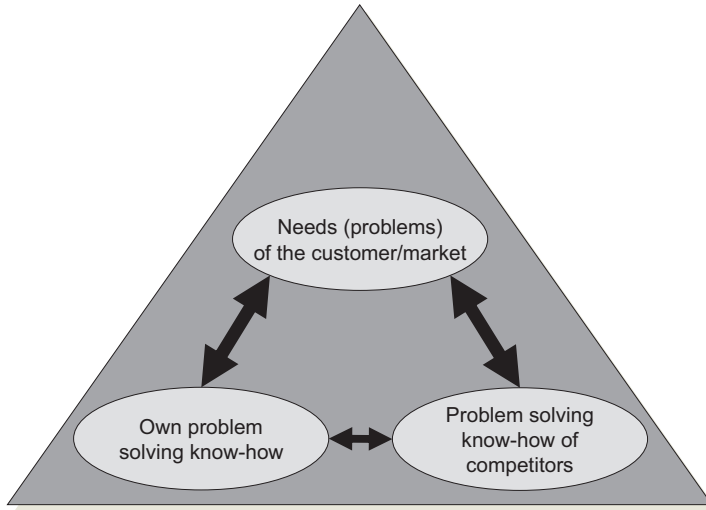
Fig. 60 Competition in problem-solving know-how

Table 6 Product benefit versus customer benefit

Product benefits	Customer benefit
50% reduced noise level of the cleaning device	5% reduction in sick leave (caused by noise)
30% higher combustion performance of the fuel	Drive 10% more kilometer additionally (per tank filling)
20% less noise of a multimedia projector	Increase of the satisfaction of seminar participants by 5%
100% biodegradable	Reduction of disposal costs by 10%
Twice the projection lamp life (compared to competitors)	Improvement in sales figures and productivity per unit area at the POS (point of sale) by 6%.
Halving of the maintenance intervals compared to the competition	Increase in machine utilization by a factor of 2

Product Benefit Versus Customer Benefit

Product managers are often confronted with the term customer benefit. Especially sales and marketing use this term frequently. The difference between product benefit and customer benefit is unclear in many cases. In practice, however, a clear distinction is necessary. Basically, one can say that the customer benefit is a continuation of the product benefit. The customer benefit is above the product benefit in the benefit hierarchy. The examples from various product areas and industries shown in Table 6 are intended to provide clarity.

In the case of product benefits, it is assumed that they can be provided directly by the product (or the product-related services). This product benefit is provided under certain operating conditions. These operating conditions (e.g. temperature, humidity, radiation exposure, etc.) must be specified by the product manager in the market specification and later also described in the corresponding documents (e.g. technical documentation). These conditions of use must also be referred to in the training of the sales department and the customer.

Customer benefit goes one step further. The customer benefit can no longer be provided directly with the product, but is dependent on framework conditions that go far beyond the operating conditions mentioned. It is possible to increase the combustion performance in the cylinder of an engine with a certain fuel mixture (direct product benefit), but the customer benefit of a higher mileage per tank filling can no longer be achieved with the product benefit alone. In this case, additional special conditions such as

- load weight,
- tyre pressure,
- tread depth,
- slope,
- driving behavior,
- road condition,
- weather,
- etc.,

have a significant influence on the level of customer benefits. Sometimes a customer benefit can only be achieved if the own product is used in combination with other products, systems and services.

Particular caution is required when communicating product or customer benefits. Benefits, whether product or customer benefits, that are communicated (e.g. by means of product advertising or product brochures) are components of sales contracts. With product benefits, this is usually not a problem because you, as the product manager, can control the benefit delivery. With customer benefits, you do not have this influence. Therefore, when communicating the customer benefit, you have to point out the specific conditions. In practice, this is usually done with footnotes that refer to the corresponding texts and descriptions.

2.3.3 Quality Function Deployment (QFD)

The consistent further development of the product benefit analysis can be found in the Quality Function Deployment (QFD) methodology. The QFD methodology is a highly structured method for translating your customer requirements and customer needs into features. In addition, the methodology serves to support your product planning by:

- Reduction of complexity
- Aggregation of market and technology

- Discussion of concrete product topics
- Structuring the discussion
- Visualization of the discussion topics
- Documentation of the procedure
- Transparency of decision-making
- Prioritization of product topics

The central basic principle of this method is the combination of customer needs and product features in a two-dimensional matrix. In addition to this matrix, you can integrate the following further points into the analysis:

- Prioritization of customer needs
- Correlation analysis of the product features (house of quality)
- Competitive comparison (strengths/weaknesses)
- Prioritization of features
- etc.

In up to four stages, you can cover not only product development, but also process and production planning. In practice, however, only the first two stages of the model are usually used. The basic principle of the methodology is that customer needs and product/service features are juxtaposed in a two-dimensional matrix (see Fig. 61).

The advantage over the product benefit analysis is that you can assign the product features to several customer needs more easily (see Fig. 62).

This makes the methodology particularly suitable for complex products and services. You can also use this method well in joint work in product teams.

The further presentation of the QFD methodology would go beyond the scope of this book. If you are interested in this method, please consult the relevant literature.
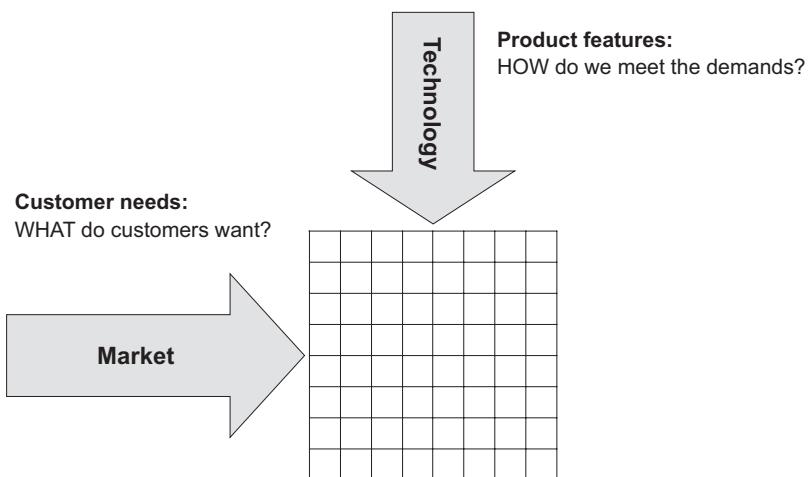
Fig. 61 Basic principle of quality function deployment (QFD)

	Product features							
Customer needs	Acoustic emission	Maintenance interval	Design	Efficiency	Mass	Color variants	Error interval	Emission
Low noise level	O		O	O	O			
No maintenance		O		O			O	
Good appearance			O		O	O		
Low consumption	O	O		O				
Low space requirements			O		O			
Optically adaptable			O			O		
Long life span		O		O			O	O
Compliance with standards				O				O

Fig. 62 Allocation of product/service features to customer needs

2.3.4 Practical Applications

The practical applications of product benefit analysis are manifold. The most important applications in practice are presented here.

Sales Presentations, Sales Manual and Sales Tools

In the product-related sales training, which you have to ensure as a product manager, the product benefit analysis forms the basis for the entire sales presentation. If you analyze the best-known sales training concepts, you will usually find the following tasks that the sales representative has to master during the sales presentation:

• Use of questioning techniques to identify customer needs
• Presentation of the product benefits to the customer (also in comparison with competitors)
• Summary of relevant product benefits and purchase conclusions
• Answering the customer's questions about product and service features
• Handling of objections when the product benefit is doubted by the customer

These tasks can either all come to the sales representative in one sales presentation, or they are distributed over a buying process with several sales presentations. If you look at the individual tasks, it quickly becomes clear where the individual elements of the product benefit analysis are used.

With the customer needs listed in the first column of the product benefit analysis, you give the sales representative the opportunity to identify the relevant customer needs already in the preparation for the sales presentation and to align the question strategy specifically to them. The third column is helpful in presenting and summarizing the product benefits. In your sales manuals, the benefit arguments for the most important product benefits should already be formulated in writing. Product-related questions of the customer regarding features can be answered with the help of the second column of the product benefit analysis. Customers are often technically interested and ask how the product benefit is technically realized. If the customer has objections, the fourth column of the product benefit analysis is relevant. You as the product manager provide the sales representative with a sales manual in which not only the product benefit analysis is integrated, but all documents, studies, reports, etc. listed in the proof column and prepared for customer presentation are available.

In addition, you can provide the sales representative with tools for calculating and quantifying the customer benefits for individual customers.

The example in Fig. 63 shows a simple IT-supported tool that the product manager of an industrial goods manufacturer in the B2B market has developed for sales.

Competitor product	Own product	
200.00		Machine rate
0.00	30.00	Wheel price (€)
27.00		Wheel diameter (before use)
21.60		Wheel diameter (after use)
0.02		Dressing infeed
0.00		Dressing time
10.20	6.36	Grinding time
2	9	Dressing interval
10.20	6.36	Effective cycle time
352.94	566.04	Productivity
270		Dresses per wheel
0.00	1.23	Wheel cost per piece
56.67	36.57	Process cost per piece
	35%	Customer benefit

Fig. 63 Customer-specific benefit calculation (customer benefit)

In this example, the benefit was calculated on the basis of process costs per unit. Despite the cheaper competitor product, the customer benefit was calculated to be around 35% higher on the basis of the process costs per unit. In many cases, the customer-specific calculation of the benefit is necessary. Although it is possible to present a general benefit in product advertising (e.g. process cost reduction of between 20% and 40%), in direct customer contact these benefits usually have to be calculated and presented specifically for the customer.

If you do not conduct direct sales but indirect sales via intermediate stages (e.g. wholesalers, retailers, value added resellers (VAR), original equipment manufacturers (OEM), system integrators (SI), etc.), you can also determine the product benefits for these intermediate stages. Due to the different need profiles, different product benefits and product features will arise (see Fig. 64).

In addition, you can distinguish between the different groups of people and departments within the customer organization (buying center) with different customer needs.

The different priorities in customer needs and customer requirements are illustrated by the example of a product from the construction supply industry in Fig. 65.

Creation and Delimitation of Specifications

You can also use the product benefit analysis effectively as a tool for creating and delimiting the market specification. The customer needs and problems as well as the quantified product benefits are usually defined in the market specification. You can take these directly from the product benefit analysis, at least as far as the product and service-relevant topics are concerned (customer need and product benefit column). In this context, the product specification deals with the definition of the contents for the feature column. Here again, it becomes clear how important it is for you as the product manager to clearly delineate between the different columns of the product benefit analysis (see Fig. 66).
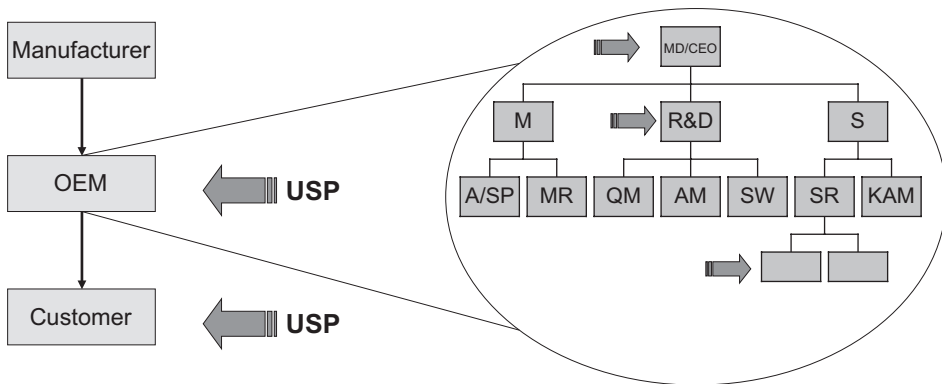
Fig. 64 Different customer needs in multi-level marketing

Customer groups	Carpenter				Dealer				Architect			
Requirements	unimportant	less important	important	very important	unimportant	less important	important	very important	unimportant	less important	important	very important
1. Customer orientation	O	O	O	O	O	O	O	O	O	O	O	O
2. Price	O	O	O	O	O	O	O	O	O	O	O	O
3. Service capacity	O	O	O	O	O	O	O	O	O	O	O	O
4. Adherence to delivery dates	O	O	O	O	O	O	O	O	O	O	O	O
5. Delivery times	O	O	O	O	O	O	O	O	O	O	O	O
6. Marketing	O	O	O	O	O	O	O	O	O	O	O	O
7. Field service	O	O	O	O	O	O	O	O	O	O	O	O
8. Customer contact	O	O	O	O	O	O	O	O	O	O	O	O
9. Information	O	O	O	O	O	O	O	O	O	O	O	O
10. Friendliness	O	O	O	O	O	O	O	O	O	O	O	O
11. Regionalization	O	O	O	O	O	O	O	O	O	O	O	O
12. Optimal problem solving	O	O	O	O	O	O	O	O	O	O	O	O
13. Training	O	O	O	O	O	O	O	O	O	O	O	O
14. Order processing	O	O	O	O	O	O	O	O	O	O	O	O
15. Contact management	O	O	O	O	O	O	O	O	O	O	O	O
16. Assortment	O	O	O	O	O	O	O	O	O	O	O	O
17. Quality	O	O	O	O	O	O	O	O	O	O	O	O

Fig. 65 Different priority of customer needs (excerpt)

Customer need	Feature	Product benefit	Proof
Increase of productivity	Computer control	Increased productivity (between 15 and 25 percent)	Article in trade journal
Reduction of complaints	Computer control, error indexing system	Decrease in complaints (between 20 and 30 percent)	References from customers, error logs
Sound purchase decision	Free requirement analysis	No wrong decisions	Sample needs analysis
Reduc... downt...	24h re...	Reduct... ...ne up to 25...	Article in trade journal

Market specification — Product specification — Market specification

Fig. 66 Product benefit analysis and specifications

Briefing for Product Advertising

The product benefit analysis also provides you with sufficient content for the briefing of the advertising agency or your own marketing department.

Your product advertising usually consists of the following elements:

- Slogan (USP)
- Text elements

- Picture element
- Product/brand logo
- Response element

The slogan and the text element are developed by the agency's copywriter. The slogan usually contains the central USP of the product, text elements additionally contain important features of the product and/or further product benefits, but also a representation of customer problems/needs. In addition, evidence can also be integrated into the text elements.

The content basis for these two elements of product advertising is provided by the product benefit analysis. The picture element supports the statement of the central USP of your product and is designed by the "creatives" of the agency. The product/brand logo serves to mark and recognize the product or brand. The response element is necessary for contacting and additional information.

2.4   Price as a Decision Criterion

The term price is used here as a collective term for all possible price-relevant factors (e.g. discounts, conditions, etc.). As already shown, the price-sensitive customer uses price as a primary decision criterion for almost identical product performances of standard products.

Price also becomes relevant as a decision criterion for performance-sensitive customers, especially if the potential customer cannot identify any performance advantage between the products. It does not matter whether the performance advantage is objectively non-existent or simply not perceived (see Fig. 67).
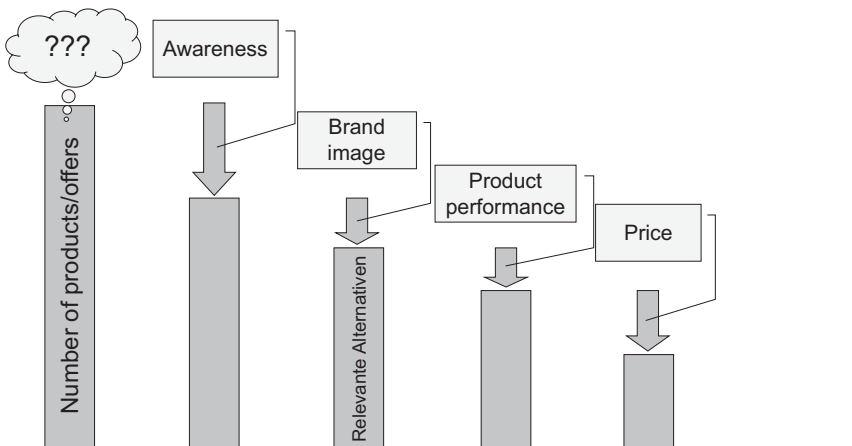
Fig. 67   Purchase decision criterion price

Customer needs (product-related)	W	Own product		Competitor 1		Competitor 2	
		E	W x E	E	W x E	E	W x E
• Fast processing	8	2	16	6	48	9	72
• Understandable insurance terms	6	7	42	6	36	4	24
• Reimbursement of surpluses	8	8	64	8	64	7	56
• Reliability	10	6	60	10	100	10	100
• Economical use of the insured's money	6	4	24	5	30	8	48
• Unbureaucratic	8	7	56	6	48	4	32
• Premium reduction	7	5	35	6	42	3	21
• Various insurances	10	8	80	6	60	9	90
• Information	8	6	48	8	64	3	24
• Reimbursement policy	6	9	54	8	48	6	36
Product benefit index			**479**		**540**		**503**

Fig. 68 Calculation of the product benefit index

2.4.1 The Price-Performance Ratio

When discussing price, the price-performance ratio is always cited as a decision criterion. The price-performance ratio can also be calculated in this context. The basis for this is the calculation of the product performance component. The price is usually easy to determine. The performance component of your product is determined by calculating the product benefit index from the customer's point of view (see Fig. 68).

As the example of the calculation of the product benefit index of a financial service product shows, you first determine and weight (W) the relevant product-related customer needs, because not all customer needs are equally important for the customer in the purchase decision. Weighting scales with five points (5 … very important to 1 … not very important) or with ten points (10 … very important to 1 … not very important) are often used.

Then you will also evaluate (E) your product and the relevant competitor products from the customer's point of view. In doing so, you assess the extent to which the products satisfy the relevant customer need. Here, too, rating scales with five points (5 … very good to 1 … very poor) or with ten points (10 … very good to 1 … very poor) are usually used. By multiplying weighting by evaluation (W × E) and forming the column sum you get the product benefit index.

You can then easily calculate the price-performance ratio:

$$\text{Price-performance ratio} = \frac{\text{Performance (product benefit index)}}{\text{Price}}$$

In this example, the competitor's product 1 (see Table 7), which is almost 10% more expensive, has a better price-performance ratio than our own product. In order to achieve the same price-performance ratio with your own product, the price would have to be reduced to around 243 €. This raises the question for you as a product manager, to what extent a lower product performance (product benefit index) compared to the competition

Table 7 Calculation of the price-performance ratio

	Product benefit index	Price (€)	Price-performance ratio
Own product	479	255	1.878
Competition 1	540	275	1.964
Competition 2	503	260	1.935
Average	507	263	1.928

can be quasi compensated by a lower price. Obviously, the answer depends on the product, the market and competitive situation, etc. An example from the IT sector will give you some hints.

Example: Compensation of inadequate product performance through price reduction
A product manager of a company from the software industry, responsible for specific application software for corporate customers, tried to identify the price sensitivity of customers in several workshops with the sales department. This information was to be used as an additional basis for determining the product price. In these workshops, the results of the product benefit index calculation, which takes place every quarter, were also brought in. For the product benefit index survey, customers and potential customers were selected by random sampling and interviewed by means of a prepared questionnaire. The calculation of the product benefit index was carried out for the own product as well as for the product of the main competitor. The sales representatives came up with the idea of comparing the price development of their own product (taking into account discounts and other price-effective conditions) with the development of the product benefit index. The idea was implemented and brought the realization that with an advantage in the product benefit index of about 20% compared to the competitor's product, the competitor was no longer in a position to compensate for this performance disadvantage through price discounts. The customer would get a significantly cheaper product, but with clear performance disadvantages.

Figure 69 shows an excerpt from the presentation of the product benefit index with integrated price index (own product) used for the workshops with sales.

The left vertical scale shows the product benefit index, the right vertical scale the price index. As you can easily see, over the course of two and a half years, the product benefit of the own product increased (from 56 to 62), while the price index decreased (from 77 to 73). In the first quarter (Q1), the own product had an advantage in the product benefit index of about 20% (product benefit competition: 45, product benefit own product: 56). On the basis of this dominant advantage, the sales representatives were able to counteract customer demands for price reductions, discounts and conditions. It made no sense for the customer to switch to the competition, as he would suffer a significant performance disadvantage with this important product. This good negotiating position enabled the sales force to maintain price levels. In the next quarter (Q2), the competition introduced a new release. Here things looked different again. The competition had followed suit. The performance of the products was practically comparable, and the company's own negotiating position
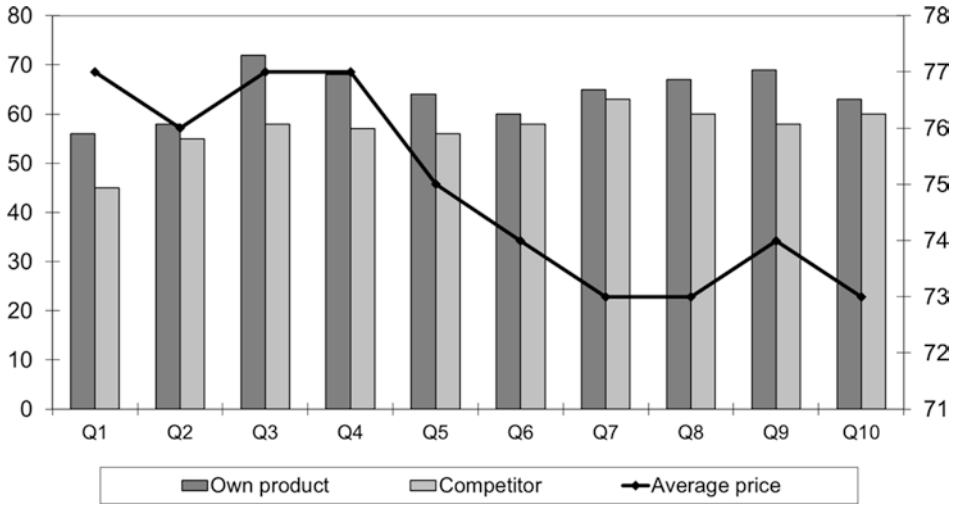
Fig. 69 Development of price and product benefit index (excerpt)
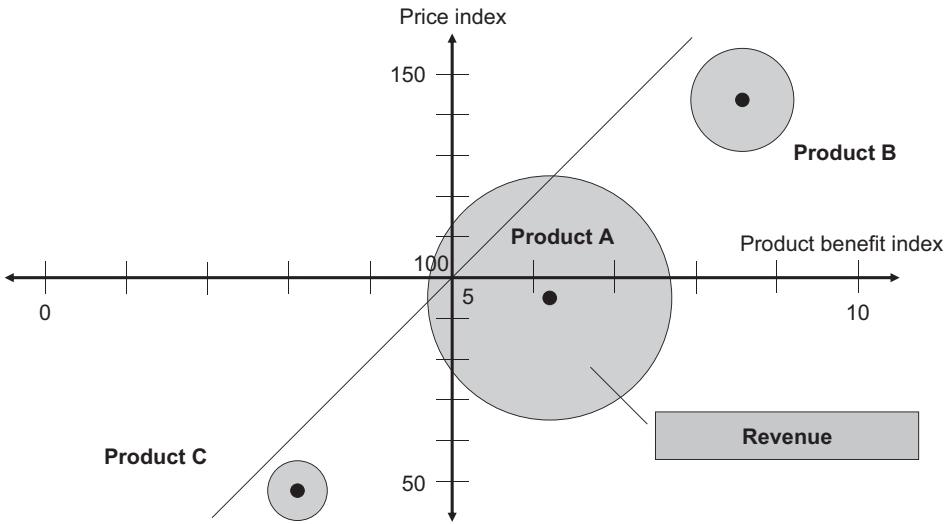
Fig. 70 Price-performance positioning of products

with the competition was also the same. The compensation for the lack of performance differentiation was made through the price.

The price-performance ratio can also be represented graphically in another form. The form shown in Fig. 70 is often used to display the **price-performance positioning**.

Products A, B and C are clearly positioned. Product B is positioned in the high-price segment. Product A is positioned in the mid-price range and product C is in the price-sensitive/low-price range.

As a product manager, you can also use the price-performance positioning to determine the performance classes of the products when designing your product assortment/product range and to check the assortment structure. You use the **scoring model** to determine the price-performance positioning. You go through the following steps:

Step 1: Determine the Product Market
You use the product market matrix to determine the relevant product market or planning unit (product market combination) to be analyzed. In addition, you also determine the three most important competitors.

Step 2: Estimate Revenue and Prices
In the next step, you determine the revenue of last year (own revenue and revenue of competitors). In the case of high revenue fluctuations per year, take an average value of the last three to five years as a basis. With these values you calculate the market shares. To get 100% market share, add the category "other" for the remaining competitors. The average price of the three competitors and your own average price are calculated in the same way.

Step 3: Calculate the Price Index
Using the market shares and the average prices, calculate the average market price index and the price index per supplier (see Table 8).

Table 8 Calculation of the price index

	Market share (MS)	Average price (AP)	MS × AP	Price index (AP/AMPI) × 100
Product A	60	10	600	95
Product B	25	15	375	143
Product C	15	5	75	48
Total			1050	
Average market price index AMPI = (sum MS × AP)/100			10.50	

Step 4: Calculate the Performance Index

Here you determine and weight the most important non-price factors (product-related and service-related factors) from the customer's point of view. The weighting (W) of the individual factors must add up to 1 in this methodology. Likewise, evaluate the degree of product performance (E) using a scale of 1–10 (1 … poor, 5 … average, 10 … very good). With both values (W and E) you can calculate the **performance index** (see Fig. 71).

Step 5: Present the Price-performance Positioning

Using the price and performance index of each supplier, you can now determine the price-performance positioning. You draw the position in the graphical model. The size of the circle diameter represents the product revenue.

You can use the subjective-objective matrix to control and optimize the product benefit index (see Fig. 72).

As already mentioned, the customer's assessments of product performance are subjective and in some cases also significantly flawed compared to objective product performance. This is where the subjective-objective matrix comes in, in order to identify these differences and to increase the product benefit index with suitable measures.

The following measures are available for increasing the product benefit index:

- Direct and indirect communication measures to correct the customer's subjective misperception of your product performance.
- Improvement of your product performance (product and/or service) in case of objective disadvantages in competitive comparison.

No action is necessary for the performance criterion "fast processing". The subjective misjudgement of the criterion "premium reduction" must be corrected by you as product

| Non-price factors | Weigthing | Supplier | | | | | |
| | | A | | B | | C | |
	W	E	WxE	E	WxE	E	WxE
Service	0.6	6	3.6	9	5.4	2	1.2
Design	0.2	7	1.4	10	2.0	3	0.6
Availability	0.1	5	0.5	6	0.6	8	0.8
Packaging design	0.05	6	0.3	5	0.25	7	0.35
Brand	0.05	8	0.4	7	0.35	2	0.1
Sum	1.00	32	6.2	37	8.6	22	3.1
Unweighted average (sum E/number of factors)		6.4		7.4		4.4	

Fig. 71 Calculation of the performance index
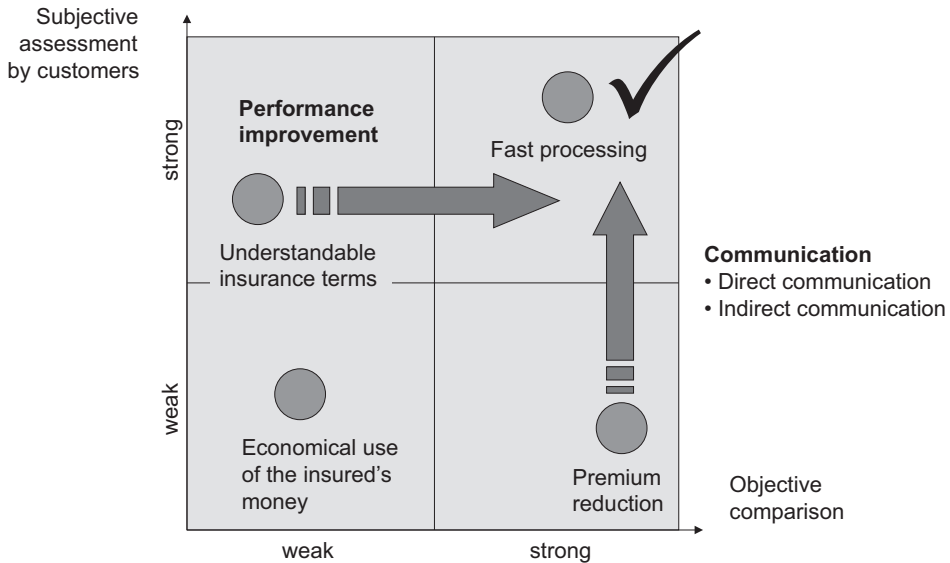
Fig. 72 Subjective-objective matrix

manager with appropriate means of communication. The performance criterion "under-standable insurance terms" is strongly rated on the customer side, but objective reality forces you to act by improving performance and thus revising and improving the current insurance terms and conditions for this insurance product. The performance criterion "economical use of the insured's money" is in need of optimization in both dimensions (see Fig. 72).

You can also use the product benefit index calculation to check the suitability of an existing product for different market segments. In this case, you perform the product ben-efit index calculation for each individual market segment. The different customer needs and weightings, as well as the different degrees of product performance per market seg-ment, lead to different results. The results also give you clues for any product differentia-tion that may be a necessary part of a differentiated product market strategy.

The example in Fig. 73 is about a product from the software and hardware industry. The higher the product benefit index of a market segment, the more positive the product suit-ability is for the market segment (below 30 points: degree of suitability low; 30–40 points: degree of suitability medium; above 40 points: degree of suitability high).

A comparison of the product benefit index per market segment with the attractiveness of a market segment (market segment size, growth in the segment, etc.) also provides additional insights for product management decisions (see Fig. 74).

For the market segments food and beverage industry, there is a high degree of suitabil-ity of your own product. The market segment attractiveness is also promising in both market segments. Although the market segment oil industry also has high attractiveness, success is probably not given due to the relatively low product benefit index.

Market segment	Customer need 1	Customer need 2	Customer need 3	Customer need 4	Customer need 5	Customer need 6	Product benefit index	Degree of product suitability	Ranking
Electronics	6	9	9	8	9	6	47	high	2
Mechanical engineering	7	3	3	10	4	6	33	medium	5
Vehicle construction	4	7	7	5	6	5	34	medium	4
Banking	10	10	6	4	9	9	48	high	1
Metal processing	8	4	3	7	4	6	32	medium	6
Chemistry/Pharmaceuticals	4	6	7	8	10	7	42	high	3
Insurance	3	7	4	2	7	9	32	medium	7
Energy suppliers	6	3	3	2	5	7	26	low	8
Consumer goods	2	4	4	3	5	2	20	low	9

Fig. 73 Product benefit index by market segment
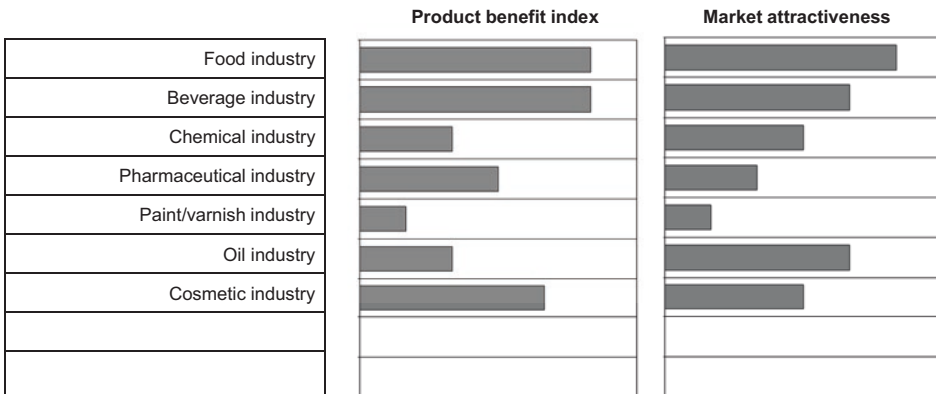
Fig. 74 Comparison of product benefit index and market attractiveness

2.4.2 The Cost-Benefit Ratio

You must clearly distinguish the cost-benefit ratio from the price-performance ratio. The cost-benefit ratio compares your costs for creating the product performance with the value of your product performance for the customer (see Fig. 75).

The purpose of determining the cost-benefit ratio is to identify starting points for optimizing the product benefit with the lowest possible product costs. First, you determine your own costs for creating the product feature. Using market research (e.g. conjoint analysis), you also determine the value of the product feature (benefit) from the customer's point of view. The quotient of customer value and costs of the feature results in the cost-benefit ratio.

Example: Determination of relevant product features

In order to optimize his own product in the area of agricultural vehicles and equipment, a product manager working in the product area of tractors used the cost-benefit analysis. Market

Product feature	Cost of product feature (€) (1)	Value for the customer (€) (2)	Cost-benefit ratio (3) = (2) : (1)
On-board computer	26	52	2
Air conditioning	250	750	3
Navigation system	240	1440	6
ASC (anti-slip control)	180	360	2
Automatic climate control	75	75	1

Fig. 75 Determining the cost-benefit ratio

research was carried out to determine the product features relevant to the customer. The market research consisted of individual interviews with customers in which the following questions were addressed:

- What do you like about the existing product?
- What additional product features should the product have?
- What product features do you think would improve the product?
- How much would you pay for each of these product features?
- What do you think about the following product features (presentation of list of features)?
- How much would you pay for each of these additional product features?

After completion of the market research, the results were evaluated and the relevant product features were assessed from a cost perspective. The calculated cost-benefit ratio provided essential insights for product optimization.

2.4.3 Target Costing and Target Pricing

Another field of application of the price-performance and cost-benefit approach can be found in target costing and target pricing. Your procedure for applying this approach is as follows:

Step 1: Define the Product

Through market research, you determine the features and benefits of the product that the market requires.

Step 2: Set the Price (Target Price)

In the next step, you determine the price at which the product should be offered, taking into account the market and competition. You can determine the target price either by means of pricing models for a new product (e.g. conjoint analysis, etc.) or, in the case of existing products, by means of target prices set by customers or industry expectations. The following example shows a price-performance model for a product from the mechanical engineering industry. The future expectation of the industry is based on a target price index of 0.68 (see Fig. 76).
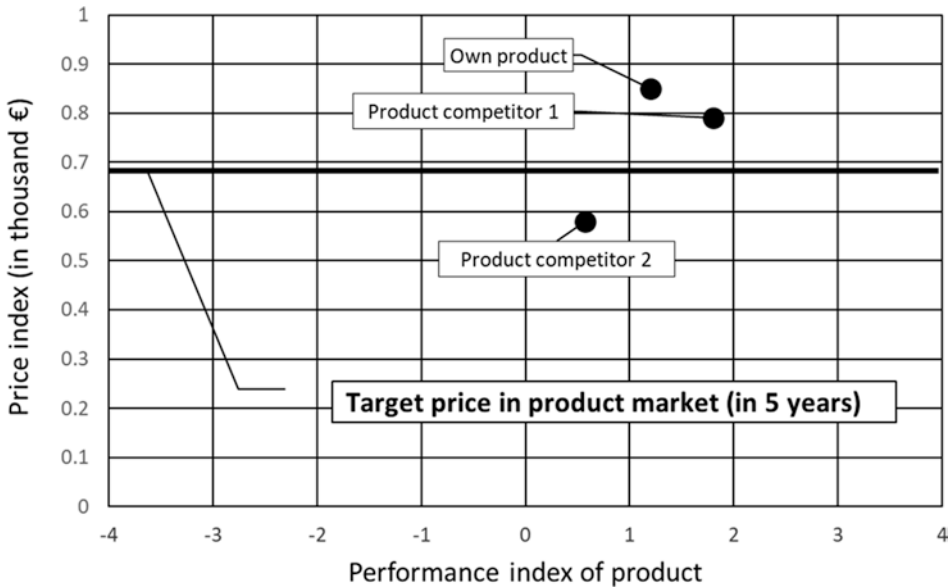
Fig. 76 Target pricing in the product market

The quality suppliers (own product and competitor 1's product) are still well above the price expectations.

Step 3: Determine the Costs (Target Costs)
You subtract the necessary contribution margin from the target price and obtain the target costs to be achieved.

Step 4: Analyze the Cost Reduction
You examine the costs to be achieved for the various product features using different methods (e.g. QFD …) for cost reduction potential (e.g. design costs, packaging costs, manufacturing costs, material costs …).

Step 5: Realize the Cost Savings
In the last step you realize the cost saving potentials through

- negotiations with suppliers,
- deletion of insignificant product features,
- use of alternative technologies,
- reworking of parts and assemblies,
- use of alternative materials,
- etc.

If you do not reach the target costs, it is quite possible that your new product will not be launched successfully on the market or that the existing product will not perform well enough.

2.5   Relationship Management

Relationship management rounds out the variables that influence the customer's decision to buy your products or services (see Fig. 77).

The actual customer relationship is essentially shaped by your sales representatives or your key account managers. Different levels are used in shaping the relationship with the customer. The level of the customer relationship usually has a direct impact on the strength of the relationship (see Fig. 78).

Which relationship level and thus relationship strength you strive for with the customer essentially depends on the size of your customer base or customer structure and the share of the customers of the total revenue (and also contribution margin) of your company.

Relationship Level 1
At this relationship level, you strive to merely sell the product or service. You limit the number of customer contacts to the bare minimum. No further customer contact is sought after the purchase has been concluded. If this relationship level is targeted, you as the product manager do not need to make any further arrangements for the customer after the purchase has been made.

Relationship Level 2
The goal of relationship level 2 is also to conclude a purchase as quickly as possible, but here you ask the customer to contact the sales representative or the company if questions arise about the product or the product application, or if complaints and grievances about the product arise. If relationship level 2 is the goal, you as the product manager must define and design the appropriate product-related communication channels for the customer.
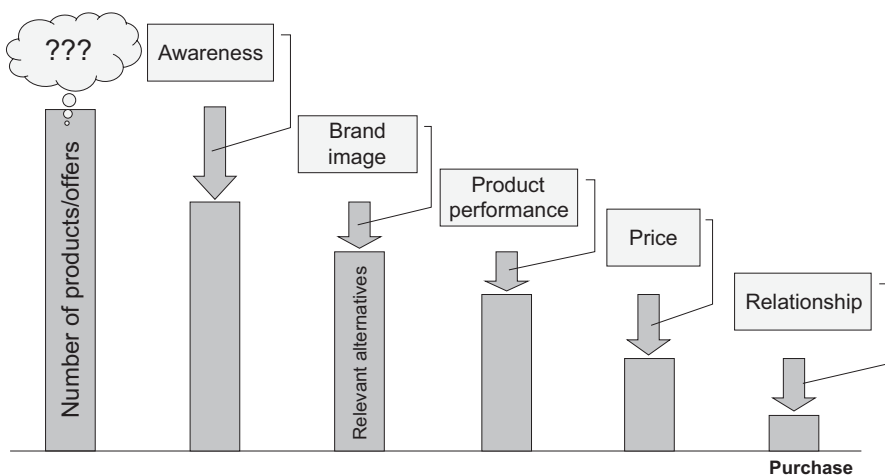
Fig. 77 Relationship management and purchase decision
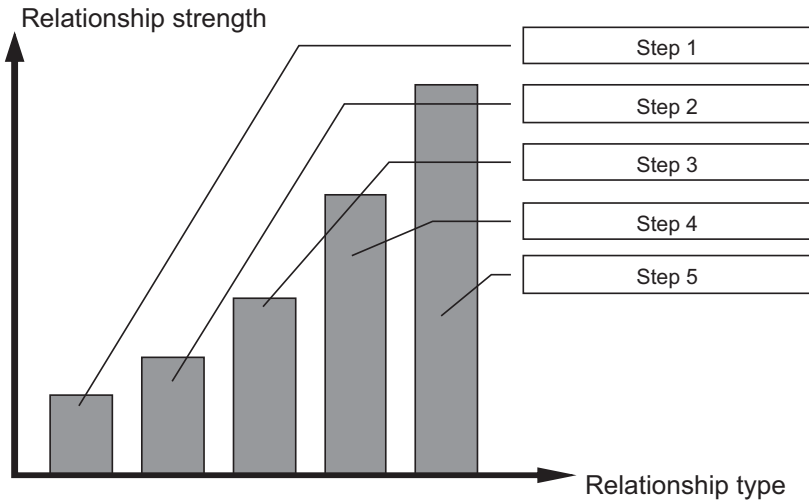
Fig. 78 Relationship strength and relationship type

Relationship Level 3

With relationship level 3 you complete the change from passive to active shaping of the customer relationship. Here, the customer is not only encouraged to make suggestions for improvements to the product or service, he is also actively contacted by your company to find out if

- the product or service meets his expectations.
- the customer is satisfied or dissatisfied with the product.
- the product-related services meet his expectations.
- the costumer experience with the company is satisfactory.
- etc.

Relationship Level 4

Relationship levels 3 and 4 are not very strongly demarcated in practice. In addition to the activities in relationship level 3, the customer is contacted on a regular basis and provided with information about new products, new services, new applications, etc. The customer is then informed about the new products and services.

If relationship levels 3 and 4 are targeted, you as a product manager should ensure that not only the corresponding product-related active and passive communication channels for the customer are defined and designed, you must also define the contact frequency, contact content, etc. and ensure that the information obtained is collected and processed and reflected in the product/ service design and product marketing.

Example: Designing customer contacts in relationship management

A company from the consumer goods industry developed a customer typology by means of a market segmentation and a customer-related ABC analysis and assigned three different levels of relationship management to the customer types. Each product manager in this company was asked to define the active and passive product-related customer contacts. One product manager developed the following active and passive customer contacts for his product group (excerpt):

- Passive customer contacts

  – Chargeable technical hotline (24 h, 365 days, worldwide)
  – Chargeable commercial hotline (24 h, 365 days, worldwide)

- Active customer contacts

  – Monthly e-mail information
  – Annual customer satisfaction survey
  – Product information magazine quarterly
  – User chat room (monthly fixed dates)

Relationship level 5

In this relationship based on partnership with the customer, your company works together with the customer to achieve performance improvements, savings, innovative marketing activities, etc. for your products or services. This form of relationship management is used primarily with key customer groups or in key account management. If relationship level 5 is targeted, you as a product manager must ensure that the necessary resources are made available for these more customer-specific communication platforms. Joint workshops with customers and project teams are the focus here.

2.6   Customer Satisfaction

The variables described so far clearly play a central role in the customer's purchasing decision. Your product success and thus your success as a product manager are closely related to the creative management of these variables. However, the control variables for product marketing go even further, as you can also determine and shape relevant variables after the purchase. In this context, customer satisfaction is to be regarded as a central variable.

Customer satisfaction or dissatisfaction usually arises from a comparison that the customer makes. Through image advertising and especially through product advertising, you communicate to the customer a unique selling proposition (USP). As part of the purchase decision process, customers now weigh up which product offers them the most benefits. Subjective expectations about the benefits are also formed, which influence the purchase decisions. After a purchase decision has been made, the subjective experience of using the product is compared with your value proposition. The comparison can now lead to fulfillment, over-fulfillment or under-fulfillment. Accordingly, one also speaks in the context of customer satisfaction of

- customer satisfaction,
- customer enthusiasm or
- customer dissatisfaction.

Depending on the degree of customer satisfaction, the repurchase rate, the reference potential (recommendation rate), the cross-selling rate and the trust capital are also influenced.

However, customer satisfaction as a control variable only becomes meaningful for you as a product manager when it is measured. Customer satisfaction is often estimated with the help of revenue growth, share of regular customers, number of warranty cases, etc.. However, these variables are not only determined by customer satisfaction, but also by other influencing variables. A particularly striking statement by a product manager from the construction industry on the assessment of customer satisfaction via incoming orders underlines this approach.

> **Example: Measuring customer satisfaction**
> The product managers of a company in the construction industry had the task of developing a model for measuring customer satisfaction for the company's individual product groups, which was not only to reflect the absolute customer satisfaction index in the product group, but could also be used as a direct benchmark for comparison with other product groups. The values were then to be subsequently integrated into the goal agreement and performance appraisal system for the product managers. The project was to be presented at a kick-off workshop together with the head of product management. One product manager made the following comment on the project proposal presented: "I don't need customer satisfaction measurement. I know that if my customers are no longer satisfied, they will no longer buy from me."

However, this certainly valid statement is not sufficient for a proactive and creative approach as a control variable. Methods that involve the customer in a more direct way are more reliable. For this purpose, qualitative methods (e.g. evaluations of complaint statistics, individual customer surveys on critical events, etc.) and quantitative methods (surveys on product satisfaction, etc.) are combined. When asking customers about customer satisfaction, you can record the satisfaction values directly by using rating scales.

> **Example: Scaling for customer satisfaction measurement**
> A company in the service industry conducts an annual customer satisfaction analysis of its services. The scaling used is divided into five categories:

1. completely satisfied
2. very satisfied
3. satisfied
4. less satisfied
5. dissatisfied

Which of the following services do you use with us and how satisfied are you with the service provision?

	1	2	3	4	5
• Factory/object security	☐	☐	☐	☐	☐
• Porter/reception services	☐	☐	☐	☐	☐
• Escort/personal security	☐	☐	☐	☐	☐
• Alarm service	☐	☐	☐	☐	☐
• Courier service	☐	☐	☐	☐	☐
• Event services	☐	☐	☐	☐	☐
• Security technology	☐	☐	☐	☐	☐
• Security analysis	☐	☐	☐	☐	☐
• Precinct services	☐	☐	☐	☐	☐

For which of the following services do you work with another company and how satisfied are you with the service delivery?

	1	2	3	4	5
• Factory/object security	☐	☐	☐	☐	☐
• Porter/reception services	☐	☐	☐	☐	☐
• Escort/personal security	☐	☐	☐	☐	☐
• Alarm service	☐	☐	☐	☐	☐
• Courier service	☐	☐	☐	☐	☐
• Event services	☐	☐	☐	☐	☐
• Security technology	☐	☐	☐	☐	☐
• Security analysis	☐	☐	☐	☐	☐
• Precinct services	☐	☐	☐	☐	☐

1: completely satisfied 2: very satisfied 3: satisfied 4: less satisfied 5: dissatisfied

In this company, not only an absolute value per service is collected, but also the comparative values of the own services among each other and in comparison with the competition is recorded. The evaluation of customer satisfaction surveys can provide you with a result as shown in Fig. 79.

This evaluation of a customer satisfaction analysis of a service product also shows the distribution of convinced customers, satisfied customers and disappointed customers. 60% of all customers were enthusiastic about the friendliness, 35% were satisfied and 5% were disappointed. The determination of the repurchase rate, the reference potential, the cross-selling rate and the trust capital is done with similar procedures.

Example: Questionnaire for customer satisfaction measurement (excerpt)

1. Overall, how satisfied are you with our services performance so far?
2. Give the two most decisive reasons for satisfaction/dissatisfaction with our services.
3. Which of the following services do you use and how satisfied are you with the service delivery?
4. Do you currently work with any other companies in this service areas?
5. How satisfied are you with the performance of this other company you are still working with?
6. Will you work with us again for future new and/or additional services?
7. Would you recommend us to other companies with a need for these services?
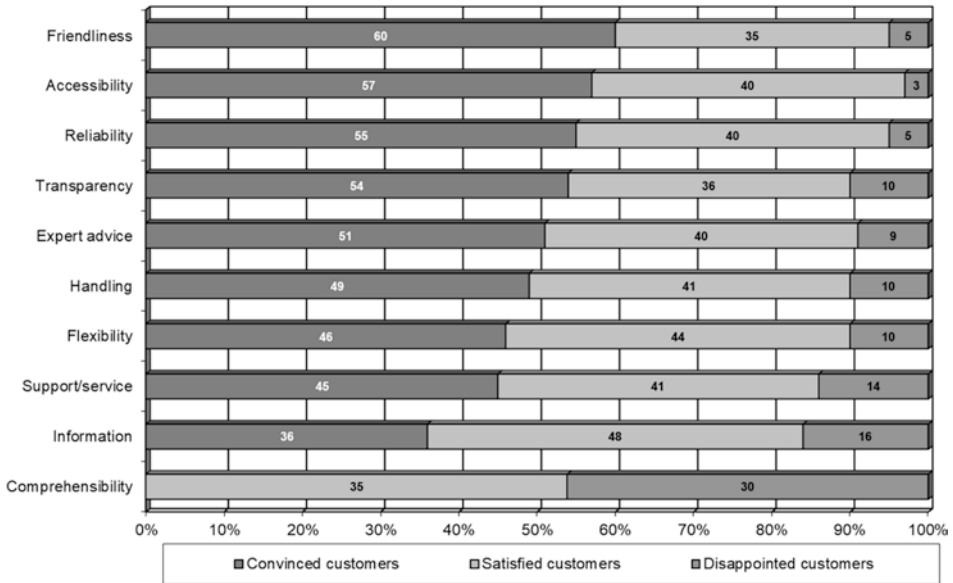
Fig. 79 Customer satisfaction analysis and evaluation

8. If another supplier presented to you for these services, how likely would you be to choose that alternative supplier?
9. In general, how satisfied are you with our response to your complaints?
10. Please tell us the two most important reasons for your satisfaction/dissatisfaction with our response to your complaints.
11. When you think back to the initial contact and the associated quotation process with the contact partner from us, how satisfied were you in terms of …?
12. How satisfied are you with the following points in the actual execution of the order by us?
13. How satisfied are you with the ongoing support provided by our contact partner?

As you can see in this questionnaire, different aspects of customer satisfaction, including the likelihood of switching, are asked.

The results of the evaluation of reference potential (see Fig. 80) and repurchase rate (see Fig. 81) show a clear picture. Around 60% of convinced customers and 34% of satisfied customers will definitely recommend the product (here an example from the consumer goods market). The repurchase rate in this case is particularly high. 70% of all convinced customers and 44% of all satisfied customers will buy the product again from the existing supplier if they need a replacement. The cross-selling rate (see Fig. 82) was also determined for this product.

The cross-selling rate records the extent to which the customer would buy other products within the product group or other product groups of the existing supplier in addition to the purchased product.
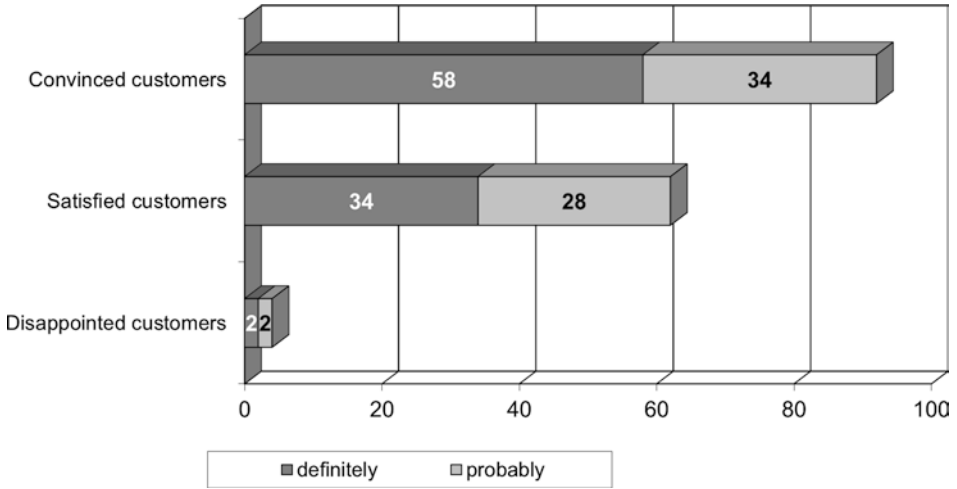
Fig. 80 Measurement of reference potential (recommendation rate)
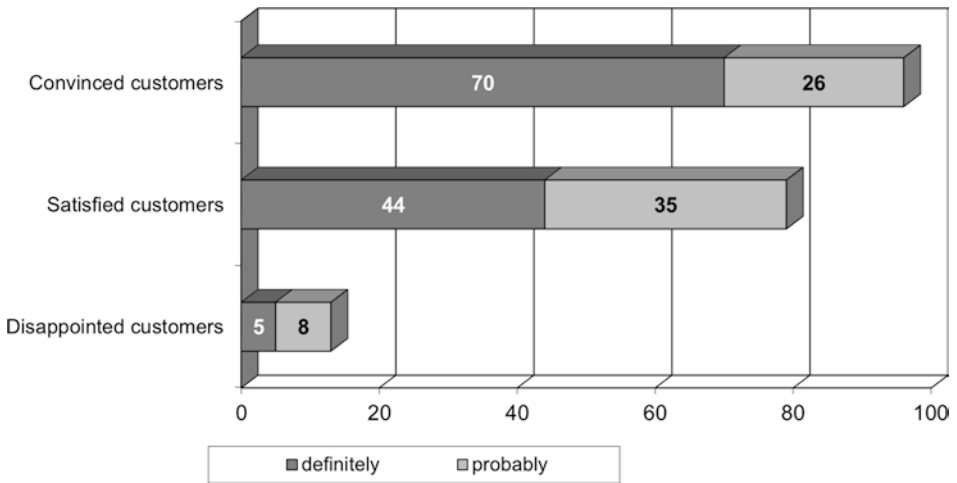
Fig. 81 Measurement of repurchase rate

Increasingly, the trust capital of products and brands is also measured in product man-agement. The trust capital results from a contact with the customer on product level, which develops positively over a longer period of time. The trust capital is mostly the result of the effect of all control factors and also has a reverse effect. With high trust capital, for exam-ple, the credibility of your product advertising is increased and thus the advertising effec-tiveness is improved.

The measurement of the trust capital in the product market of digital cameras shows a clear dominance of brand 1 (see Fig. 83).
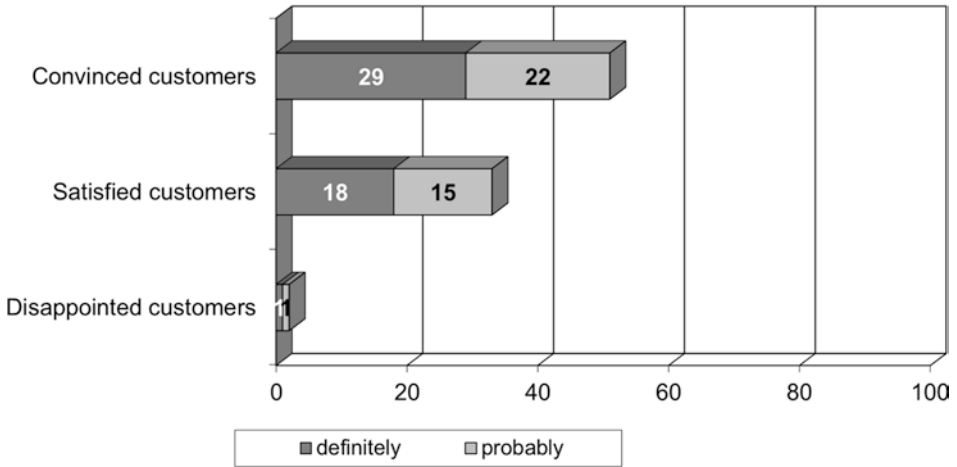
Fig. 82 Measurement of cross-selling rate
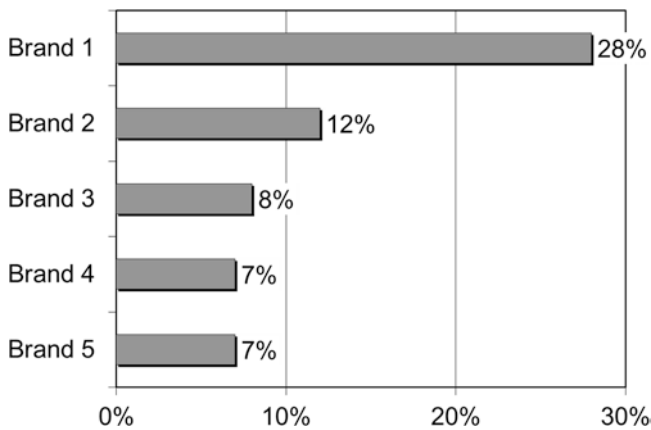
Fig. 83 Measurement of trust capital

3   Clarity Through Numbers: How the Product Manager Determines Relevant Key Figures

As a product manager, you have the task of carrying out a quantitative assessment of the product market. This assessment not only forms the basis for your product planning at the product management level, but also provides you with the numerical values for the creation of product portfolios at the corporate level as well as the foundations for your product-related operational sales planning. Based on this, you as a product manager create a product contribution margin calculation in addition to the product market evaluation, which is also part of your product planning and the goal agreement with you.

3.1 Compilation of Market and Sales Figures

As part of the quantitative evaluation of the product market, you determine both the market and sales figures.

Market figures are values related to a reporting date (referring to a point in time). You can distinguish between:

- Market capacity
- Market potential
- Market volume
- Market share

Sales figures are period-related values (related to a period of time). You can distinguish between:

- New demand
- Replacement demand
- Sales volume
- Sales share

3.1.1 Calculation of Market Figures

Before you start calculating the individual figures, you must determine the base size. The base size depends on your product market. Examples of base sizes for different product markets are shown in Table 9.

For the determination and calculation of the market and sales figures, a software and hardware system for installation and use at the workplace is selected here as an example. A country was selected for the regional definition of the product market. The base size for the product market is the number of workplaces. Based on the country's job census, 30 million workplaces are determined (see Fig. 84).

In the first step, you calculate the market capacity. The market capacity is defined as follows:

> **Market capacity**
> is the theoretically possible need for a product or service (= need).

Table 9 Determination of the base size of product markets

Product market	Base size
Drugs	Number of persons
Household appliances	Number of households
Laboratory equipment	Number of laboratories
Office equipment	Number of workplaces
Animal feed	Number of animals
Business information	Number of companies
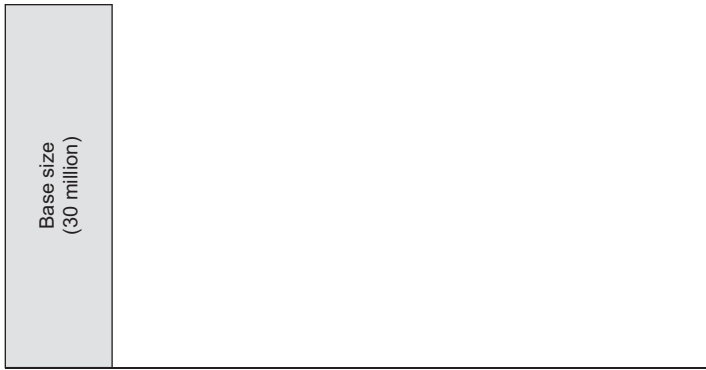
Fig. 84 Determination of the base size
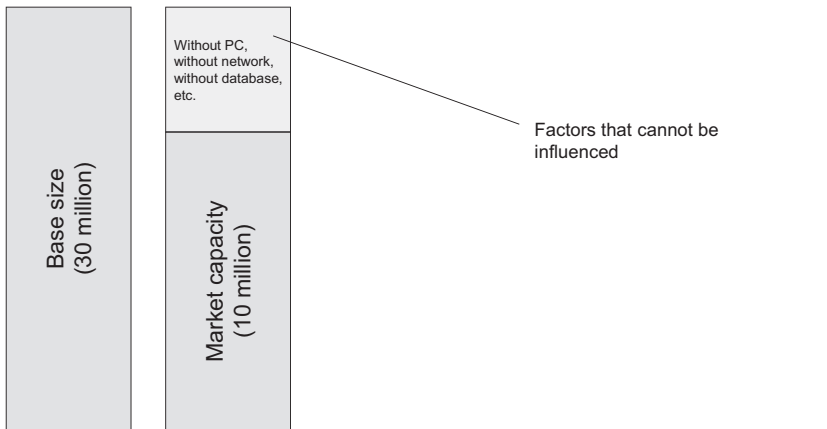
Fig. 85 Market capacity and factors that cannot be influenced

In our example, it is only possible to equip workstations with such a system if the workstation has the appropriate basic requirements. These basic requirements are:

- Personal computer (PC)
- Installed telephone system
- Access to network
- Access to database (DB)
- etc.

The basic requirements defined at this level are also referred to as non-influenceable factors. Non-influenceable because you as a product manager cannot influence these factors via the product marketing used (see Fig. 85).

Of course, there may be no limiting factors in your product market. In the case of a motor vehicle liability insurance, the law ensures that every car owner must have this type of insurance. In this case, the market capacity is same as the base size.

In the second step, you calculate the market potential. The market potential is defined as follows:

> **The market potential**
> is the actual demand for a product or service (= demand).

While it is theoretically possible to install the system in ten million workplaces, nevertheless only a small proportion of the workplaces are equipped by the companies. You need to subtract these factors (sometimes called non-purchase reasons) from the market capacity to get the market potential. The special feature of these factors is that they can be influenced by your product marketing. Non-purchase reasons include:

- Workplaces without customer contact
- Use of an alternative technology
- Budget freeze in the IT sector
- etc.

This system optimizes contact with external customers. Workplaces that have no external customer contact (such as HR, accounting, etc.), although they could theoretically be equipped with the system, are not part of the market potential. Of course, one can object that this cannot be influenced even with the use of the product-related marketing mix. However, the use of a potential-expanding marketing mix by convincing companies to use this system also for internal company communication (internal customer) is certainly possible. Likewise, alternative technologies are actually used instead of this system. Simple IT-based file systems to manual index card systems are still being used. A budget freeze in the IT area is also a factor here (see Fig. 86).

In the third step, you determine the market volume and market share. The market volume and market share are defined as follows:
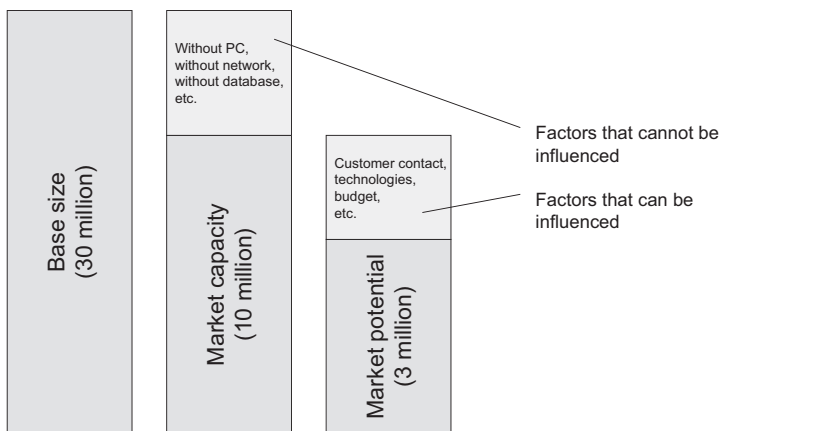
Fig. 86 Market potential and factors that can be influenced

The market volume
is the sum of products or services (own product and competitor products) already sold on the product market (= inventory or installed base).

The market share
is the share of products or services (own product and competitor products) of the market volume.

In this case, the total sum (all suppliers) of the quantities already sold (market volume) or the installed base of products at the customer's is 1.5 m. You must not include the products that are in your warehouse or in the warehouse of intermediaries. From this inventory, the market share (MS) of your product and the products of the competitors (in percent or absolute) is determined (see Fig. 87).

The market share of the own product in this case is 30%, the market share of the two largest main competitors is 10% each. Around 90 other suppliers share the remaining 50% of the market volume.

You can calculate the market saturation from the market volume and the market potential. If you divide the market volume by the market potential and multiply the value by 100, you get the market saturation in percent. In the example shown, the market saturation is 50%. In the product life cycle model, this product market would be in the growth phase, also in this case supported by the high annual market growth rates.

When calculating the market figures, please note these are date-related figures. The sales figures, on the other hand, are period-related.

3.1.2 Calculation of Sales Figures

The market figures calculated so far represent, so to speak, the initial values for your period-related product planning. You carry out product planning both strategically (several years) and operationally (annual planning). This results in the period-based sales figures.
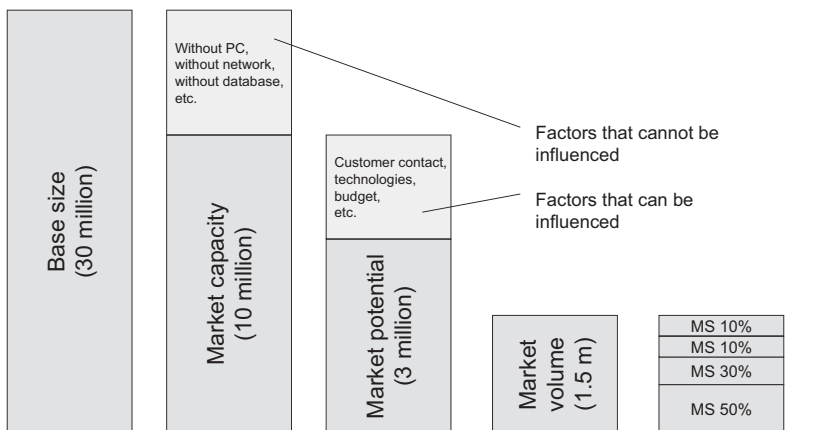
Fig. 87 Market volume and market share

The example of a software and hardware system for installation and use at the workplace shows you how these are determined. The sales figures are calculated here on the basis of annual planning (T = actual date, T + 1 = date after one year). You can use the same principles of calculation for multi-year planning.

Base size, market capacity and market potential change. You must determine these values as date-related plan values for the following year. It is clear that the base size, the market capacity and market potential can change significantly due to various influencing factors. The base size shrinks because companies cut jobs in the period under consideration. Market capacity can also increase as companies seek to increase productivity in the remaining workplaces and equip them with appropriate technology. The market potential also increases because IT budgets are released again during this period and companies abandon alternative technologies due to a lack of functionality and consider switching to new systems (Fig. 88).

Pay particular attention to the change in market volume. The market volume grows on the one hand (new demand) and shrinks on the other (replacement demand).

New and replacement demand are defined as follows:

The new demand
    is the share of the market potential that has not yet been tapped.

The replacement demand
    is the share of the market volume that is replaced.

In the case of customers who represent the market potential that has not yet been tapped (difference between market potential and market volume), the need (market capacity) has already been concretized into a demand (market potential). They are already in a buying process, so to speak. Since these buying processes take a long time, market saturation is
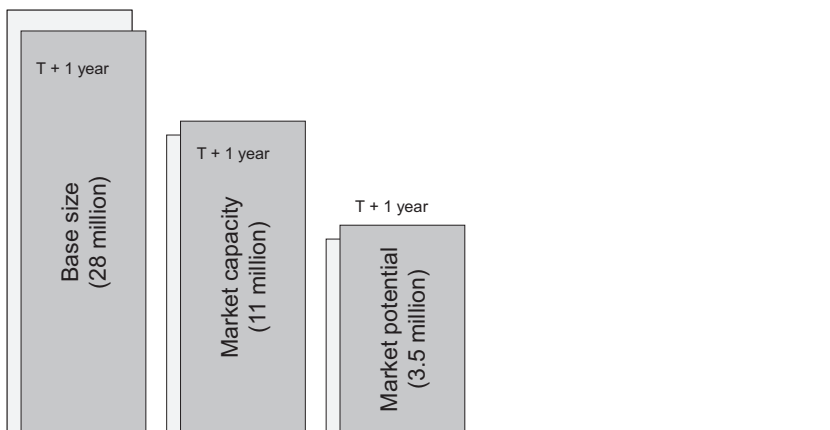
Fig. 88 Base size, market capacity and market potential over time
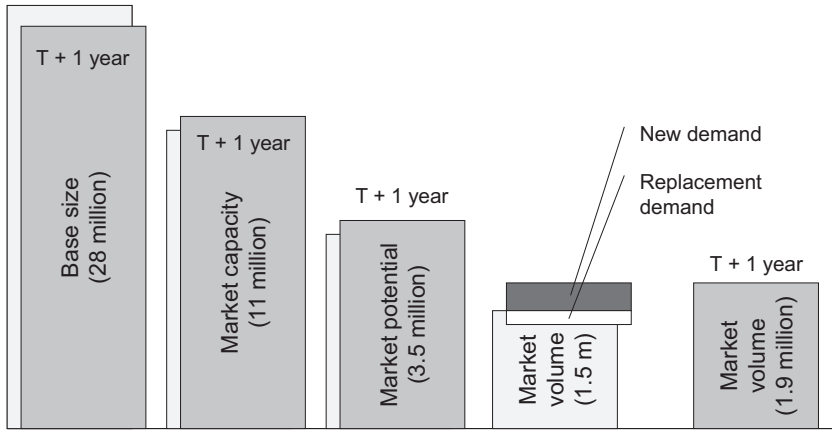
Fig. 89 New demand and replacement demand

Fig. 90 Realized and unrealized replacement demand
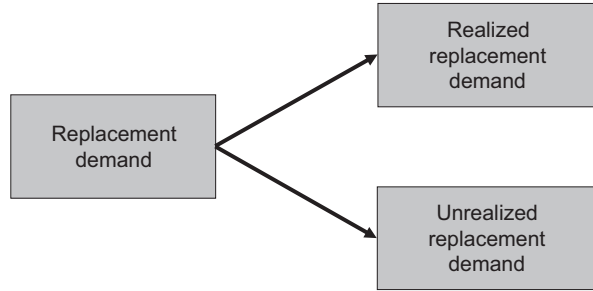
not reached immediately. Bottlenecks on the supplier side (production and delivery bottlenecks, etc.) can also contribute to this. Those customers who make a purchase decision in the period under consideration represent the new demand. The market volume at the end of the period (T + 1) is the sum of the market volume on the actual date T and the new demand. The replacement demand results from the replacement of existing products. The replacement demand can be caused by a product defect or simply by an obsolescence of the product (see Fig. 89).

For the replacement demand, you can as well distinguish between the realized and the unrealized replacement demand (see Fig. 90).

In the case of realized replacement demand, the product to be replaced is actually replaced (e.g. after a car accident with total loss, the car is replaced). In the case of unrealized replacement demand, the product is no longer replaced (e.g. the car driver with the total loss decides to travel only by public transport in future). This car driver thus drops out of the market volume and market potential.

The sum of new demand and replacement demand is the sales volume. The sales volume is the total amount of products or services that can be sold in the product market in the period under consideration. All product managers fight for this sales volume. Their

goal is to gain as large a share of sales as possible (= share of sales volume in percent or absolute) over the competition. Your sales volume (absolute) is also the quantity that goes into your product-related sales planning.

The market saturation for this system after one year again results from the market volume and the market potential (one year later). In the example shown, the market saturation increases from 50% to 54%.

The calculation of your sales share (in percent and/or absolute) of the sales volume is usually based on the target market share of the product. The market share to be achieved by the product in the defined product market is an essential part of the goal agreement with product management.

> **Example: Calculation of the sales share for product planning**
> The product manager, responsible for marketing of the software and hardware system chosen as an example for installation and use at the workplace, had the task of calculating the sales share (in percent and in absolute terms) relevant for sales on the basis of a market share target of 35% (previously 30%) set by the business unit management. The assumed replacement demand in the overall market was estimated at around 10% (the replacement demand for the company's own products was also estimated at 10%).

The following calculation steps were chosen to determine the required values:

Calculation Step 1 (Determination of Own Sales Share)

Calculation step 1 (determination of own absolute sales share):

Actual market share (%)	30%
-> Actual market share (absolute)	0.450 m
Target market share (%)	35%
-> Target market share (absolute)	0.665 m
Actual/target market share difference	0.215 m
+ own replacement demand	0.045 m
Own target sales share (absolute)	0.260 m

Calculation Step 2 (Determination of the Sales Volume)

Calculation step 2 (determination of sales volume):

New demand (total)	0.400 m
+ replacement demand (total)	0.150 m
Sales volume (total)	0.550 m

Calculation Step 3 (Calculation of Own Sales Share in %)

Calculation step 3 (determination of own sales share in %):

$$\text{Own sales share in \%} = \frac{\text{Own sales share (absolute)}}{\text{Total sales volume}} \times 100$$

Own sales share in %:   47%
================================

The level of your sales share also provides indications for the plausibility check of the sales target for your product. 47% sales share means that (assuming that all purchase inquiries of all new customers are known in your own company and answered with offers) your sales representatives would have to achieve a closing rate (hit rate) of 47% as well. With this approach, you as a product manager can align market share targets and sales targets and thus make a significant contribution to sensible product planning. The solution approach to the calculation example can also be represented graphically as shown in Fig. 91.

3.1.3 Product Planning and Strategic Priorities

With the calculation of market and sales figures, you as a product manager create the basis for short-, medium- and long-term product planning. The results of the calculations for several years are usually presented in tabular form. Figure 92 shows you the presentation in tabular form using the example of the software and hardware system for installation and use at the workplace.
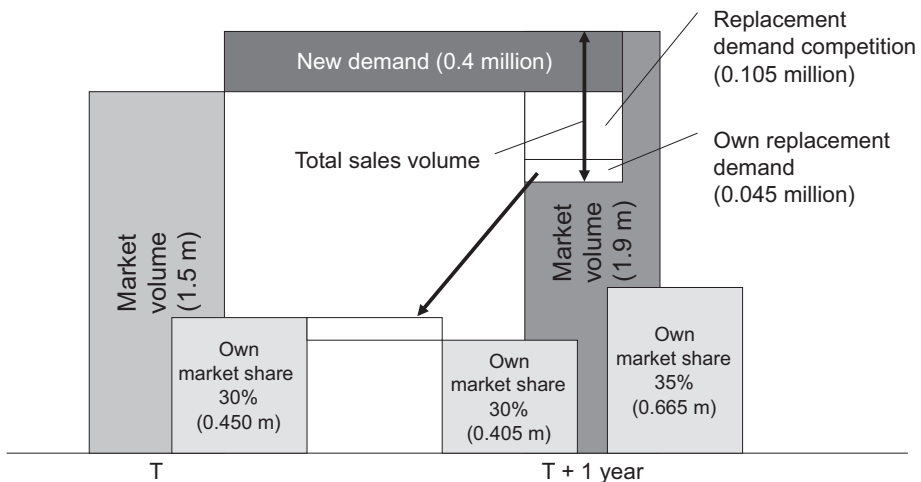
Fig. 91 Calculation of the sales share for product planning

	T	T + 1	T + 2	T + 3
Base size	30	28	27	27
Factors that cannot be influenced	20	17	15	14
Market capacity	10	11	12	13
Factors that can be influenced	7	7,5	8	8
Market potential	3	3,5	4	5
Market volume	1.5	1.9	2.6	3.8
Market saturation (%)	50%	54%	65%	76%
Market share (%)	30%	35%	40%	50%
New demand	0.40	0.70	1.20	1.30
Replacement demand	0.15	0.19	0.26	0.38
Sales volume	0.55	0.89	1.46	1.68
Sales share (%)	47%	50%	68%	

Fig. 92 Short, medium and long-term product planning

The time value T represents the past year, T + 1 to T + 3 represent the planning for the next three years. The time horizon for product planning in companies is usually between three to five years. When determining the time horizon, you should consider the following questions:

- What is the competitive situation in my product market?
- What is the time horizon of your own corporate or business unit planning?
- How strong is the dynamic in my product market?

When putting together product planning, many product managers feel uneasy about the accuracy and availability of data and information that goes into product planning. Most of the time, the information is a mix of empirical values, simple estimates and market research results. You will never find the 100% solution in practice. Of course, product managers from the consumer goods sector have an advantage over the industrial sector in terms of data. Nevertheless, your planning, even if it seems imperfect and incomplete, makes sense. The following principle also applies:

Planning replaces chance with error!

If you don't do any planning, every result you achieve is a coincidence. You cannot learn from chance. If you have made a plan and there is a deviation from the plan (target-actual), this is an error. You can learn from the error. Analyze the deviations, adjust the plan, etc. The result of this constant checking and adjusting is an increase in your planning accuracy. And that's what it's all about!

Goal: Increase your planning accuracy in product management!

Example: Increasing the planning accuracy

A product manager from the telecommunications industry had the task of launching a new product on the market. The business plan for the product was approved by the management, the product was developed and the market launch concept/plan was prepared. Despite relatively good data for product planning, it was decided to completely review the assumptions made (which were also partly estimated) in product planning every month during the product introduction phase (approximately half a year). Already at the beginning of the product introduction it turned out that for one important value the actual value deviated from the target value by a factor of 3. In the planning for this value, international comparison values in the telecommunications industry had been used. In this specific case, however, the country-specific situation resulted in a high upward deviation. The product plan was quickly adjusted and the correction of the market and sales figures were carried out.

In addition, you can derive indications for the product strategy and for operative measures from the calculation of the market and sales figures (see Fig. 93).

These strategic priorities are essentially derived from the degree of market saturation in the product market. If the market saturation in your product market is still low, the new demand is higher than the replacement demand. In this circumstance you place the strategic focus on new customer acquisition.

With increasing market saturation, there will be a point in time when the ratio of new demand to replacement demand in your product market switches and replacement demand is higher than new demand. In this case, you should ensure in good time that, in addition to new business (new customer marketing)

• your own customer base is secured (customer retention),
• customers can be won from the competition (brand changers) and also
• the consumption rate of your product is increased (if possible).
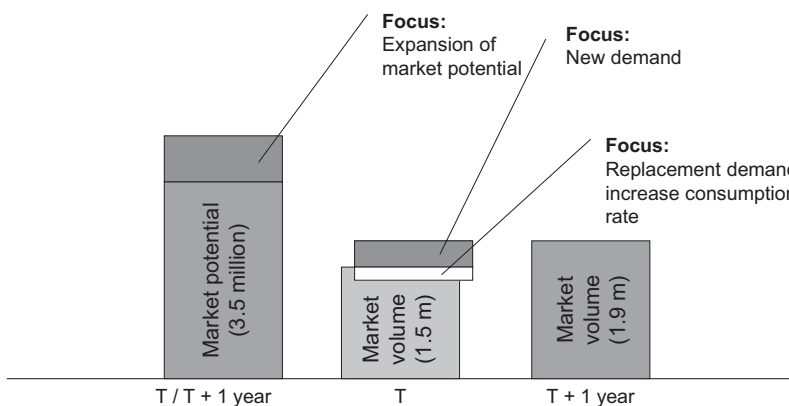
Fig. 93 Strategic priorities

Example: Increase in consumption rate

   Market saturation of a consumer product for office applications was already well advanced. Market saturation levels of over 90% had been exceeded in some countries. The need for replacements dominated, programs for customer loyalty and for the acquisition of competitor customers had already been in use for some time and in some cases had already been exhausted. To ensure further growth in the product, the product manager developed a special dispenser system for the product. This idea had been created by observing applications at selected customers. With this dispenser system, the consumption rate for this product was increased by over 30%.

Potential-expanding measures can form another possible strategic focus in your product marketing. Here you use measures to increase the market potential. For this purpose, you develop marketing programs that are targeted at the factors that can be influenced.

Example: Potential-expanding measures

   In order to further increase the market potential for the product market (software and hardware system for installation and use at the workplace), two packages of measures were developed for the American market. One package of measures focused on the "technology" factor, which can be influenced. Instead of this product, alternative technologies are actually still being used in companies. Simple IT-supported file systems up to manual index card systems can still be found. The functionality of alternative technologies is minimal, but awareness of new applications and new possibilities has not yet been awakened. The second package was focused on the "no customer contact" factor that could be influenced. It was necessary to convince companies to use this system for internal communication between departments and employees. The two programs were developed and implemented, also with the awareness that the extended potential was now also available for the competitor products. However, the good market position of the product (high market share, level of awareness and product image) ensured that the company's own product benefited disproportionately from this.

3.2   Structure of the Contribution Margin Calculation

After creating the market figures and ratios and estimating your own sales figures, you can estimate the expected costs and contribution margins of your product. The cost estimation is done by you together with the functions/departments (R&D, production, marketing, sales, finance …). Keep the following two points in mind. The first point is the maximum investment risk, i.e. the loss your product will cause in the worst case. The second point is the payback period, i.e. the time in which your product will reach "break even" or in which your product will have recouped its investment. You integrate the results into the product planning (see Fig. 94).

   You can use the following frequently used methods for your calculations:

- Return on sales calculation
- Return on investment calculation
- Break-even point calculation

	T	T + 1	T + 2	T + 3	T + 4
Gross revenue (1000 €)	3 452	4 916	6 455	8 519	11 482
Deductions (1000 €)	2	4	5	6	8
Net revenue (1000 €)	3 450	4 912	6 450	8 513	11 474
Variable costs (1000 €)	1 455	2 050	2 680	3 550	4 890
Contribution margin I (1000 €)	1 995	2 862	3 770	4 963	6 584
Fixed costs (1000 €)	1 400	1 500	2 000	2 000	2 500
Contribution margin II (1000 €)	595	1 362	1 770	2 963	4 084

Fig. 94 Product planning and contribution margin calculation

3.2.1 Return on Sales (ROS) Method

The most commonly used costing method is the return on sales method. Here you add a contribution margin markup to the costs of a product, derived from the amount of the return on sales to be achieved. Very often products are planned with too high markups in the hope that the development costs can be recovered quickly. Such an approach is usually disastrous when competitors counter with low prices.

> **Example: Contribution margin analysis using the return on sales method**
> The situation of a product manager who uses the return on sales method looks as follows:
> **Baseline:**
> Variable costs: 20 € (per piece)
> Fixed costs: 600,000 €
> Expected sales volume: 100,000 units
> **Manufacturer's unit cost:**
>
> $$\text{Unit costs} = \text{Variable costs} + \frac{\text{Fixed costs}}{\text{Sales volume}} = 20 + \frac{600,000}{100,000} = 26\ \text{€}$$
>
> **The target return on sales is 19%:**
>
> $$\text{Price} = \frac{\text{Unit costs}}{(1 - \text{Return on sales})} = \frac{26}{(1 - 0.19)} = 32\ \text{€}$$

3.2.2 Return on Investment (ROI) Method

Another cost-oriented method is the return on investment method. In this procedure, you try to determine the price that would achieve the return on investment.

Example: Contribution margin analysis using the return on investment method

The situation of a product manager using the return on investment method looks as follows:

Baseline:

Variable costs: 20 € (per piece)

Fixed costs: 600,000 €

Expected sales volume: 100,000 units

Investment: 3,000,000 €

Manufacturer's unit cost:

$$\text{Unit costs} = \text{Variable costs} + \frac{\text{Fixed costs}}{\text{Sales volume}} = 20 + \frac{600{,}000}{100{,}000} = 26 \text{ €}$$

$$\text{Price} = \text{Unit costs} + \frac{\text{Return on investment} \times \text{Invested capital}}{\text{Sales volume}}$$

The target return on investment is 20%:

$$\text{Price} = 26 + \frac{0.2 \times 3{,}000{,}000}{100{,}000} = 32 \text{ €}$$

Often the target values for return on sales and return on investment are also combined as targets for product planning.

Example: Target values in product planning

For product planning, especially when planning new products, a company specifies the following target parameters:

- Market maturity within the next X years
- Revenue potential of at least € 60 million
- Growth rate after introduction above 15%
- Return on sales at least 25%
- Return on investment at least 35%
- Achieving technology and market leadership (market share)

3.2.3   Break-Even Point (BEP) Method

The return on sales method and the return on investment method essentially assume a certain sales volume. But what do you do as a product manager if the expected sales quantities are not achieved or other target figures for the evaluation of new products are in the foreground (e.g. break-even point targets …)? To find out what would happen if sales quantities were different, use the break-even point method. The break-even point method determines the quantity of products sold which is necessary to cover all costs associated with the development, production and marketing of a product (see Fig. 95).
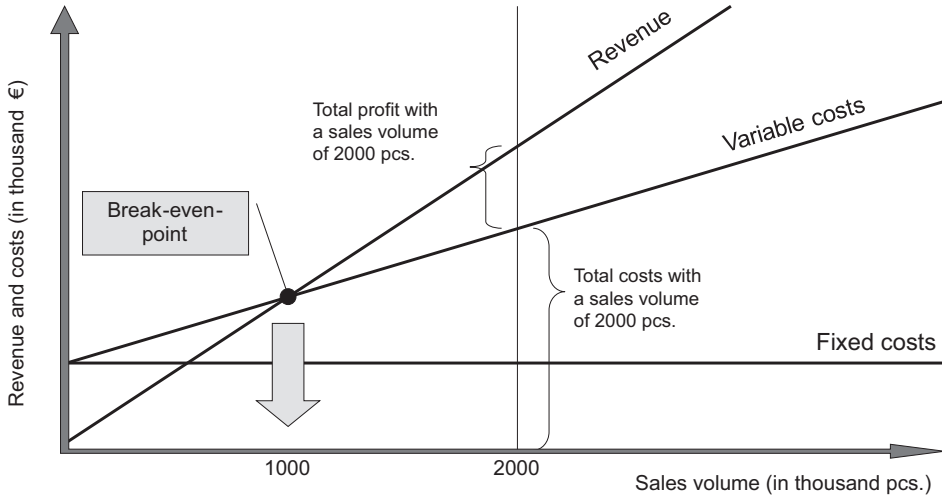
Fig. 95 Break-even point calculation

The break-even point
is the point (own sales volume) at which you make neither a profit nor a loss on your product.

Example: Calculation of the break-even point sales volume
The calculation of a product manager's break-even point sales volume is as follows:

Baseline:
Variable costs: 20 € (per piece)
Fixed costs: 600,000 €
Expected sales volume: 100,000 units
Price: 32 €

$$\text{Break-even point sales} = \frac{\text{Fixed costs}}{\text{Price - Variable costs}} = \frac{600,000}{32 - 20} = 50,000 \text{ pcs}$$

Exampe: Contribution margin analysis using the break-even point method
The situation of a product manager using the break-even point method is as follows:
The production and marketing of a new product incurs the following costs:
Investment costs: 50,000 €
Useful life: 5 years, linear depreciation/year: € 10,000
Variable unit costs: 11 €
Marketing costs (advertising, sales promotion …): € 10,000
Distribution costs (sales …): 10,000 €
Market price: 22 €

The following questions are to be answered:

1. At what quantity (break-even point) can a contribution margin be made with the product?
2. What is the contribution margin on sales of 4000 units?

Formulas used:

Formulas used:

Revenue (R) = Quantity (Q) x Price (P)
Total cost (TC) = Fixed costs (FC) + Quantity (Q) x Variable costs (VC)
Contribution margin II (CMII) = Revenue (R) – Total costs (TC)

Solution to question 1:

$$CMII = Q \times P - (FC + Q \times VC) = 0$$
$$Q \times P = FC + Q \times VC$$

$$Q = \frac{FC}{P - VC} = \frac{10{,}000 + 10{,}000 + 10{,}000}{22 - 11} = 2727 \text{ pieces}$$

Fixed cost (FC) combines depreciation per year, marketing and distribution costs
From a quantity of 2727 pieces on, a contribution margin II can be made with the product!

Solution to question 2:

$$CMII = Q \times P - (FC + Q \times VC) = 0$$

$$CMII = 4{,}000 \times 22 - (30{,}000 + 4{,}000 \times 11) = 14{,}000 \text{ €}$$

With a sales volume of 4,000 pieces the contribution margin II amounts to 14,000 €!

4   Thinking Strategically: The Use of Strategic Analysis Tools by the Product Manager

In order to be able to better analyze and depict the longer-term dynamic and, above all, complex interrelationships in your product market, various strategic product analysis models are available to you as a product manager. The most important strategic analysis models include the SWOT analysis and the influence matrix. Both models have their specific advantages and are usually used in combination with each other.

4.1   The SWOT Analysis

The **SWOT analysis** is a structured approach that allows you to evaluate the strategic position of your product or product group. To do this, you determine the strengths and weaknesses compared to the main competitor at product/product group level and identify the opportunities and threats in the product market.

The SWOT analysis in its original form was used as a purely descriptive tool. The identification of specific strengths and weaknesses as well as opportunities and threats was compiled in a rather brainstorming manner. This largely ignored the delineation of criteria and the underlying dynamic and complex interrelationships. Four fields (strengths, weaknesses, opportunities, threats) were used as a rough structuring and classification grid (see Fig. 96).

With the further development of the SWOT analysis, an attempt was made to pay more attention to the connections between strengths/weaknesses and opportunities/threats. This was done by taking into account trends and developments in the product market, which formed the link, so to speak, between strengths/weaknesses and opportunities/threats. The basis for this is the integration of a trend analysis into the SWOT analysis (see Fig. 97).

Step 1: Create the Strengths and Weaknesses Profile
The first step in creating your SWOT analysis is to compile a strengths/weaknesses profile in comparison to the product or product group of the main competitor. For you as a product manager, the main question is which criteria should be used for this comparison. The following list shows you the criteria frequently used in practice for a product-related SWOT analysis:

> **Example: Criteria for a product-related SWOT analysis**
>
> - **Success factors**
>   - Product awareness
>   - Product/brand image
>   - Performance of product

Strengths:	Weaknesses:
• Reliability of the product	• Low product marketing resources
• High product quality	• Poor service quality
• Competitive price	• Weak market share in B2B markets
• Brand awareness	• Limited production capacity
• High market share in B2C markets	• Narrow range of applications
• ...	• ...
Opportunities:	**Threats:**
• Growing market in the US	• Price/volume suppliers can adapt to niche markets
• Technological substitution	• Increasing number of specialists
• Untapped market potential in UK	• Tighter product liability and product standards
• Growing number of quality -sensitive customers	• ...
• ...	

Fig. 96 Structuring grid of the classic SWOT analysis
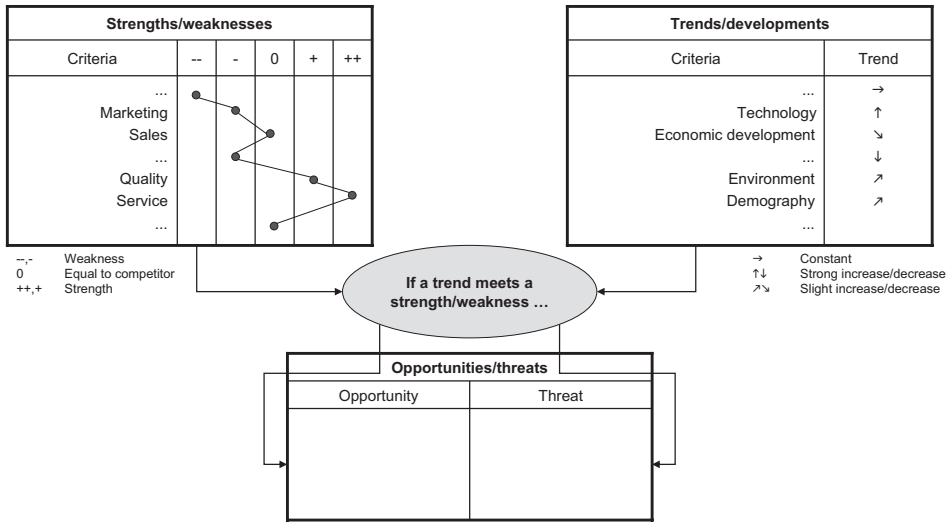
Fig. 97 Basic principle of the extended SWOT analysis

- Performance of product-related service
- Performance of other services
- Price/terms/conditions
- Relationship management
- Customer satisfaction
- Repurchase rate
- Recommendation rate
- Trust capital
- etc.

• **Market segments**

- Market segment A
- Market segment B
- Market segment C
- Market segment D
- etc.

• **Buying center of the customer**

- Access to management
- Access to R&D
- Access to purchasing
- Access to branches/subsidiaries
- Access to technology centers
- Access to production
- Access to logistics/warehouse
- etc.

- **Customer applications**

  - Application 1
  - Application 2
  - Application 3
  - etc.

- **Regions/countries**

  - Region/country 1
  - Region/country 2
  - Region/country 3
  - etc.

- **Distribution channels**

  - A-distributor
  - B-distributor
  - C-distributor
  - Specialist distributor
  - Value Added Retailer (VAR)
  - System integrator (SI)
  - etc.

- **Sales assisting organizations**

  - Universities
  - Trade associations
  - Consulting firms
  - Architects
  - Testing institutes
  - Trade publishers
  - etc.

- **Sales and service**

  - Quality sales/service staff
  - Quantity sales/service staff
  - Sales support
  - Sales/service tools
  - Service network
  - etc.

- **Marketing mix**

  - Product advertising
  - Image advertising
  - Sales promotion (SP)
  - Public relation (PR)
  - POS promotions
  - Product demos
  - Product video
  - Product brochures
  - Internet
  - etc.

- **Customer types**
  - A-customers
  - B-customers
  - C-customers
  - etc.
- **Article or article group**
  - Article A
  - Article B
  - etc.

You can also include product-related and service-related criteria (e.g. measurement accuracy, response time, delivery reliability, compatibility, etc.) in the SWOT analysis if you have not already performed a separate product benefit analysis or a product benefit index calculation. If this is the case, only include the overall evaluation of product and service in the SWOT analysis (see Fig. 98).

Step 2: Determine the Key Trends and Developments
The second step is to identify the developments relevant to your product market and forecast the trend for a longer time horizon. Figure 99 shows an excerpt of a trend analysis for a product from medical technology. The scenario technique was also used in this example.

This product manager forecasts an optimistic and a pessimistic development. The probable development is estimated at the end. It clearly lies between the extreme values.

Strengths/weaknesses					
Market-related criteria	**--**	**-**	**0**	**+**	**++**
Awareness	●				
Brand image				●	
Performance product				●	
Performance product-related services			●		
Performance other services			●		
Price/terms/conditions		●			
Relationship management		●			
Customer satisfaction			●		
Repurchase rate		●			
Recommendation rate (reference potential)		●			
Trust capital			●		
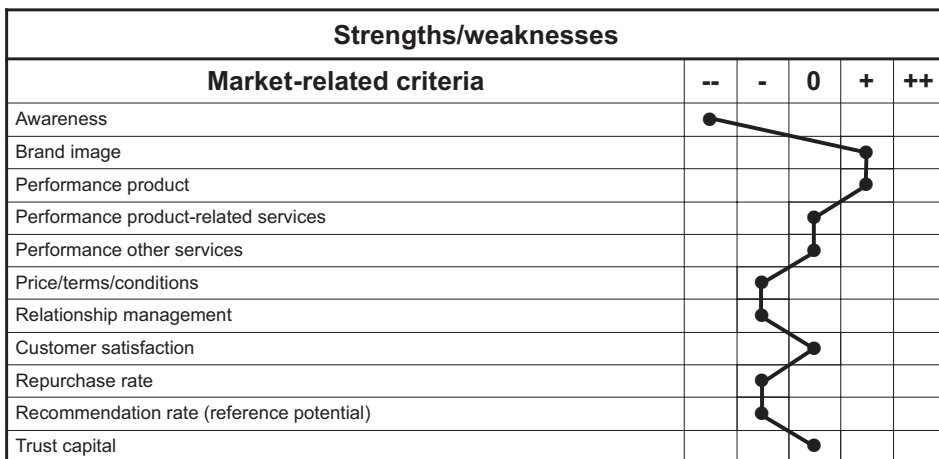
--,- ... Weakness, 0 ... Equal to competitor, ++,+ ... Strength

Fig. 98 Strengths and weaknesses profile (excerpt)

Factors	Probable development		Optimistic development		Pessimistic development	
	Trend	Number of patients	Trend	Number of patients	Trend	Number of patients
• Population growth	Stagnation	0	Slight growth	+	Slight decline	-
• Aging	Strong increase	++	Strong increase	++	Slight increase	+
• Births	Stagnation	0	Slight increase	+	Slight decrease	-
• Proportion of foreigners	Stagnation	0	Slight increase	+	Slight decrease	-
• Economic development	Stability	0	Decline	+	Decline	-
• Insurance services	Worse	-	Like today	0	Much worse	--
• Work activity woman	Slight increase	-	Like today	0	Strong increase	--
• Sexual behavior	Restraint	-	Like today	0	Strong restraint	--
• Reproductive behavior	Stable	0	Child friendly	+	Child friendly	-
• Abortion	Approving	+	Approving	+	Like today	0
• Diagnosis	Greatly improved	++	Greatly improved	++	Improved	+
• Therapy	Improved	+	Greatly improved	++	Improved	+
• Health awareness	Strong	--	Medium	-	Strong	--
• Health status	Satisfactory	-	Bad	--	Good	0
• Number of doctors	Strong increase	++	Strong increase	++	Slight increase	+
• Education/specialization	Improved	+	Greatly improved	++	Improved	+
• Number of beds	Decreasing	-	Stable	0	Strong decrease	--
• Comfort	Increasing	+	Strong increase	++	Improved	0

Fig. 99 Trends and developments in the product market (excerpt)
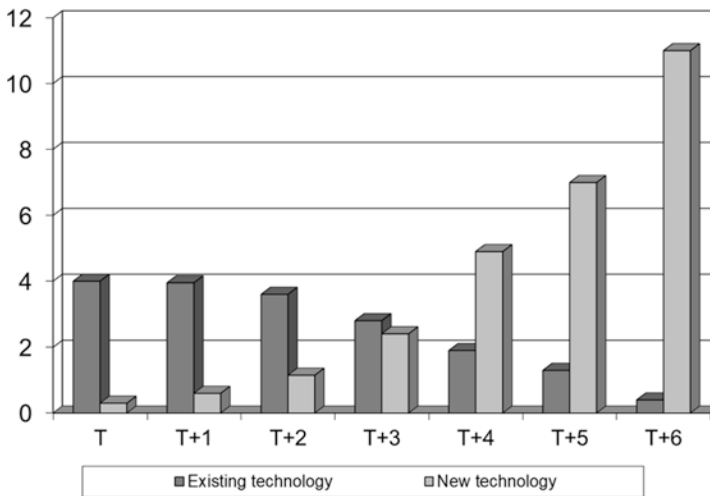
Fig. 100 Trend analysis of technology substitution

In a product from the consumer goods market, the predicted trend of technology substitution shows a relatively drastic course. Not only will the new technology completely displace the old technology and thus the existing product relatively quickly, but the new technology will also open up new market potential and thus generate a large share of new demand in the product market (see Fig. 100).

A company in the automotive industry uses the following trend checklist when identifying relevant trends and developments in the product market.

Example: Trend checklist (excerpt)

- **Economic trends**

  – Development of economic variables (inflation rate …)
  – Development of exchange rates (target markets and regions …)
  – Development of relevant economic sectors (suppliers …)
  – Dynamics of the target markets (growth …)
  – Regional development (urban/rural)

  etc.

- **Demographic and social trends**

  – Regional population development (urbanization trends …)
  – Automobile problems in conurbations
  – New forms of car use (e.g. car sharing …)
  – Social-psychological changes (leisure behavior …)
  – Individualization (product differentiation appropriate to the target group)
  – Environmental awareness
  – etc.

- **Political and legal trends**

  – Development of public transport
  – Burden on vehicle owners due to taxes, fuel prices …
  – Promotion of rail transport
  – Cordoning off of inner cities
  – Exhaust emission standards, legal standards (e.g. driving bans …)
  – Product liability and regulations
  – Environmental taxes
  – Environmental policy requirements
  – Recycling regulations
  – etc.

- **Technological trends**

  – Use of new, natural materials (ceramics …)
  – Increasing demands of customers (safety, maintenance …)
  – Infrastructure congestion
  – New traffic concepts
  – New drive concepts (natural gas, solar, electric, fuel cell …)
  – Harnessing IT in the vehicle
  – etc.

Step 3: Derive the Opportunities and Threats Profile

With the third step, you check whether a development meets a strength or a weakness and whether this results in an opportunity or threat for your product on the product market. There are several alternatives for this:

- **Rising trend meets strength:** If a trend that continues to strengthen meets an already existing strength compared to the competition, one can definitely speak of an opportunity. You as a product manager can profit from this strength. In the future, you can further develop/expand the position and the advantage over the competition.
- **Rising trend meets weakness:** If a trend that continues to strengthen meets a weakness, caution is advised. For the product manager of the competitor's product, this may be an opportunity; for your product, it is a threat. You should consider whether the gap to the competition can be closed with the appropriate strategies and measures or whether the focus on opportunities should be emphasized more strongly.
- **Falling trend meets strength:** A falling trend that meets a strength means that this particular strength will no longer be relevant in the future. You should consider whether to continue to put the resources there to build and/or maintain that strength, or rather focus on the actual opportunities or threats.
- **Falling trend meets weakness:** A falling trend that meets a weakness has the advantage that the competitor's product manager may not be able to profit further from an opportunity. However, betting on a falling trend does not make sense for you as a product manager either.

Then summarize the identified opportunities and threats in an opportunities and threats profile (see Fig. 101).

Step 4: Develop an Action Plan
In the fourth and final step, you prioritize the individual opportunities and threats and derive appropriate actions and strategic thrusts for exploiting opportunities or addressing threats.

Opportunities/threats	
Opportunity	**Threat**
With a significant lead in the development and use of alternative product technologies, the onset of technology substitution will not only drive new customer acquisition, but also brand switchers from competitors.	The poor position in the lower performance classes of the product group will lead to a loss of customers due to increasing price sensitivity and standardization in the US.
The strong position in service will become increasingly important in our customers' purchasing decisions due to the further reduction in qualified maintenance and repair personnel.	The trend to shift the purchasing decision from engineering to procurement will likely result in massive price concessions due to our poor access and relationship management with procurement.

Fig. 101 Opportunities and threats profile

4.2   Creation of an Influence Matrix

Increasingly, as a product manager, you are confronted with complex problems and issues where the application of linear problem-solving methods yields only a limited viable solution or concept. For these cases, you can use the influence matrix. The influence matrix attempts to capture the complex interrelationships of various influencing factors and to determine relevant influencing variables. The basic principle of the influence matrix is shown in Fig. 102 using the example of a trade journal publisher.

If more copies of this trade magazine are sold, i.e. the sales circulation increases, the readership reach also increases (+ … positive correlation). The more readers a magazine has, however, the more advertisements are placed and the higher the advertising revenue. This is partly used to improve the editorial offer, which ultimately has a positive effect on sales. For the increase of the attractiveness by an improved editorial offer the reader is ready to accept a higher selling price. However, the higher sales price in turn has a negative effect on the sales circulation (− … negative effect).

In this example, it is clear that many more influencing factors need to be identified and taken into account in order to reflect the complex situation in reality.

To refine the presentation of the interrelationships, you can, in addition to the positive and negative influences, also add

- the strength of influence (high, medium, low) and
- the time lag or reaction time (short, medium, long term)

into the consideration.

By using the influence matrix, you can take into account the different influence strengths of the factors (see Fig. 103).

The influence matrix relates each variable of the problem situation to each other and asks how strong the influence is on a scale from 0 (no influence) to 3 (strong influence).
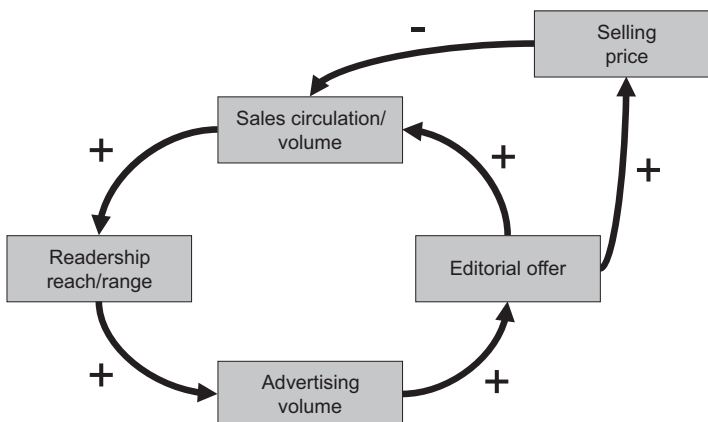
Fig. 102 Representation of complexity (excerpt)

Effect of \ on	Sales circulation	Readership reach	Advertising volume	Editorial offer	Selling price	Active sum AS	Quotient Q (AS / PS x 100)
Sales circulation		3	3	1	2	9	128
Readership reach	0		3	2	0	5	56
Advertising volume	1	1		2	2	6	75
Editorial offer	3	3	1		2	9	150
Selling price	3	2	1	1		7	116
Passive sum PS	7	9	8	6	6		
Product P (AS x PS)	63	45	48	54	42		

Fig. 103 Influence matrix (basic principle)

The blank spaces on the diagonal are left blank because each variable has no influence on itself. For example, as the influence matrix shows, readership reach has a strong influence on advertising volume (3), but no influence on sales circulation (0). Once you have determined all the influencing factors and the degree of influence, calculate the active sum (AS) and the passive sum (PS) by adding the values in the influence matrix horizontally and vertically. You then determine a quotient (Q) and a product (P) for each influence factor. The quotient (Q) and the product (P) now enable you to assess the suitability of the individual factors as steering and control variables (see Fig. 104).

In the example of the publisher, the editorial offer is shown to be an active factor, while the readership reach as a passive factor is predominantly the result of other influencing factors. In the overall assessment, the editorial offer proves to be the central control factor for the product manager. This factor has the greatest leverage effect on the overall system. As a passive factor, the readership reach is merely an indicator of success and can be used as a controlling factor. With the characterization of the individual influencing factors as active, passive, critical and inert, you have important clues for promising problem-solving interventions and focal points in the development and implementation of product strategies and concepts.

Influencing factors	Characterization	Determination	Interpretation
Active	Strongly influence the other factors, but are little influenced themselves	Highest Q	Ideal for steering interventions
Passive	Influence other factors little, but are strongly influenced themselves	Lowest Q	Low suitability for steering interventions
Critical variables	Strongly influence other factors and are strongly influenced themselves	Highest P	Suitable for steering interventions But attention: Chain reactions!
Inert variables	Influence other factors little and are themselves influenced little	Lowest P	Not suitable for steering interventions

Fig. 104 Determination of steering/control variables

5   Gaining Market Share: How Effective Product Strategies Are Developed

The development of a successful product strategy is based on a thorough analysis of your product market. However, people often jump directly from the analysis to the development of operational measures without defining the product strategy and the strategic thrusts in the product market. This rather action-oriented approach leads to the fact that a strategic long-term orientation in product marketing is very often missing. Practical experience shows that less than 20% of all product managers pursue a long-term strategy. The remainder manage the business with annual product planning on an operational level.

Your product strategy should consist of the goals to be achieved, the basic strategies and the detailed marketing mix strategies (see Fig. 105).

5.1   Setting the Product Market Goals

The definition of the goals in your product market forms the basis for strategy development. Here it is primarily a matter of defining long-term strategic goals. These are of course concretized by you in the operative annual planning to annual goals and provided with further operative targets. The time horizon of your product planning should be around five years.

Fig. 105 Structure of a
product strategy

In the case of strategic long-term product goals, you can distinguish between

- quantitative goals
    - Revenue
    - Market share/distribution share
    - Contribution margin (CM I, CMII)
    - Variable/fixed costs
    - etc.
- and qualitative goals.
    - Product awareness
    - Positioning/image
    - Product benefit index
    - Customer satisfaction
    - etc.

When defining the goals for the product market, you must consider the dependencies of the goals on each other. A purely linear planning of several goals from the actual to the target will usually not work (see Fig. 106).

In this form of planning, you do not take into account the dependencies between the goals. Revenue, contribution margin and awareness/image are planned linearly. It is more realistic to develop the awareness/image goal with priority within two years to the target value. This investment in your product market will cause the contribution margin to go down in the short term. A realistic planning looks more like the one shown in Fig. 107.

Goal setting is not only important for strategy development, but also provides the framework for your goal agreement and performance evaluation of you as a product manager. Therefore, you should always observe the following principle when planning goals:

Plan your goals for the product market realistically!

5.2   Basic strategies in Product Marketing

When developing product strategies, it is not a matter of selecting a single strategy element from the many possible ones, but of putting together a sensible and effective combination of several strategy elements.
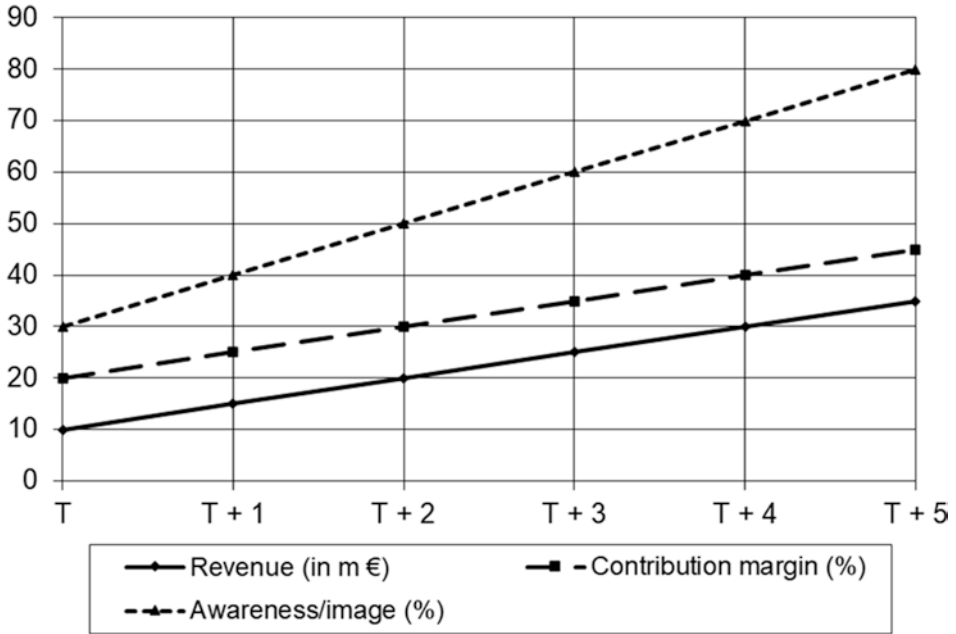
Fig. 106 Target planning without consideration of dependencies
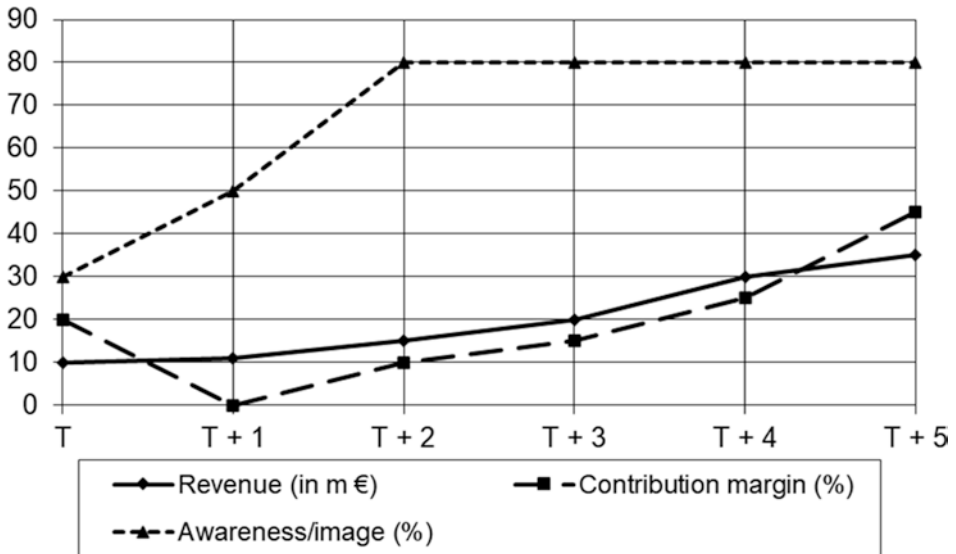
Fig. 107 Target planning with consideration of dependencies

5.2.1　Overview of the Strategy Elements

At the basic strategy level, you can use the following strategic elements.

Portfolio Strategies

It is imperative that you consider the portfolio strategies in the development of the product strategy. It essentially depends on the portfolio strategy which basic strategy you pursue in the product market. Depending on the product portfolio model used, you have the following strategy alternatives:

- **Market growth/market share portfolio**
  - Expand
  - Harvest
  - Eliminate
  - Hold
- **Market attractiveness/competitive position portfolio**
  - Selective expansion
  - Expansion with investment
  - Protect position
  - Limited expansion/harvesting
  - Selective expansion/profit orientation
  - Selective expansion
  - Divestment
  - Profit orientation
  - Protect position/refocus

Market Segment Strategies

You can choose between four strategy alternatives for market segmentation strategies:

- Undifferentiated strategy
- Differentiated strategy
- Selective-differentiated strategy
- Concentrated strategy (niche strategy)

In the specific presentation of the market segmentation strategy you should definitely list the individual market segments. For example, if you choose a selective-differentiated market segmentation strategy, you should specify which market segments are differentiated and which are undifferentiated.

Product Market Coverage Strategies

The product market coverage strategies provide you with five strategy alternatives for strategy development:

- Specialization strategy
- Selective specialization strategy
- Market segment specialization strategy

- Product segment specialization strategy
- Full coverage strategy

Again, it makes sense for you to list the individual product segments and assign them to the strategy alternatives. In some cases, it may be quite practical for you to make a further breakdown of the product segments (e.g., by A-, B-, and C- products or by individual article groups). You may also find it practical to further list alternative technologies, functions and applications. Likewise, the listing of possible benefit categories can be made.

Product Market Growth Strategies

Four strategy alternatives are available for product market growth strategies:

- Penetration strategy
- Market development strategy
- Product development strategy
- Diversification strategy

Since not only new market segments can be added as new markets in the market development strategy but also new regional markets can be selected, you should list and assign the regional/geographical markets.

Price-Performance Ratio

The basic distinction between price-sensitive and quality-sensitive customers results in several different strategy alternatives for you:

- Pricing strategy
- Quality/performance strategy
- Two-brand strategy
- Multi-brand strategy

Again, give an overview of the brands in a two- or multi-brand strategy.

Strategies According to Types of Demand

Depending on the phase of the product life cycle and the degree of market saturation, you can distinguish between:

- New demand strategies
- Replacement demand strategies
- Potential-expanding strategies
- Strategies to increase the rate of consumption

5.2.2 Strategy Development Using the Strategic Toolbox

Product strategies are developed by combining individual strategy elements. You can use the strategic toolbox as a method. The strategic toolbox provides you with a good structure to lead the strategy discussion in your product team and also to have a guideline for the presentation of the strategy internally and externally.

Strategy elements	Strategy alternatives			
Portfolio strategies	Hold/harvest	Expand/invest	Selective expansion	Eliminate
Product market growth strategies	Penetration	Market development	Product development	Diversification
Product segment strategies	Article group A	Article group B	Article group C	Total range
Positioning strategies	Price	Quality/ performance	Two-brand strategy	Multi-brand strategy
Market segment strategies	Undifferentiated	Differentiated	Concentrated (niche)	Selectiv- differentiated
Segments	Food	Chemical	Pharmaceutical	Oil
Service (USP)	Application engineering	Financing	Warranty	Delivery time
Product (USP)	Lifetime	Performance	Efficiency	Design
Demand type strategies	New demand	Replacement demand	Potential expansion	Consumption increase

Fig. 108 Basic strategy development with the strategic toolbox (excerpt)

The structure of a strategic toolbox is simple. In the first column, you list the strategy elements relevant for the product market. For each strategy element, you then specify the possible strategy alternatives (see Fig. 108).

It should be noted here that you should present all strategy alteratives. When creating the strategic toolbox, you should not yet make a preselection of strategy alternatives.

Once the strategic toolbox has been set up, you can compile the strategy focal points of the competitors, your own product strategy and possible strategy alternatives for your product (see Fig. 109).

A marked strategy alternative represents a strategic focus. Be careful to use strategy alternatives sparingly. In most cases, a strategic focus is associated with a package of measures for implementation. The costs for this are included in your contribution margin analysis. Too many strategic focal points can lead to a loss of strategic thrust and thus jeopardize the effectiveness of your product strategy.

5.3   Marketing Mix Strategies

In addition to the basic strategies, you should put together the marketing mix strategies in detail. With the marketing mix strategies, the level of detail of your product strategy increases further. It should be noted that depending on your product market, the individual elements of the marketing mix have different characteristics and thus also a different strategic share. Figure 110 shows you the assessment of the strategic proportions of the marketing mix in a specific product market.

Strategy elements	Strategy alternatives			
Portfolio strategies	Hold/harvest	Expand/invest	Selective expansion	Eliminate
Product market growth strategies	Penetration	Market development	Product development	Diversification
Product segment strategies	Article group A	Article group B	Article group C	Total range
Positioning strategies	Price	Quality/ performance	Two-brand strategy	Multi-brand strategy
Market segment strategies	Undifferentiated	Differentiated	Concentrated (niche)	Selectiv- differentiated
Segments	Food	Chemical	Pharmaceutical	Total market
Service (USP)	Application engineering	Financing	Warranty	Delivery time
Product (USP)	Lifetime	Performance	Efficiency	Design
Demand type strategies	New demand	Replacement demand	Potential expansion	Consumption increase

● Strategy of main competitor   ○ Own product strategy

Fig. 109 Determination of own strategy and competitive strategy
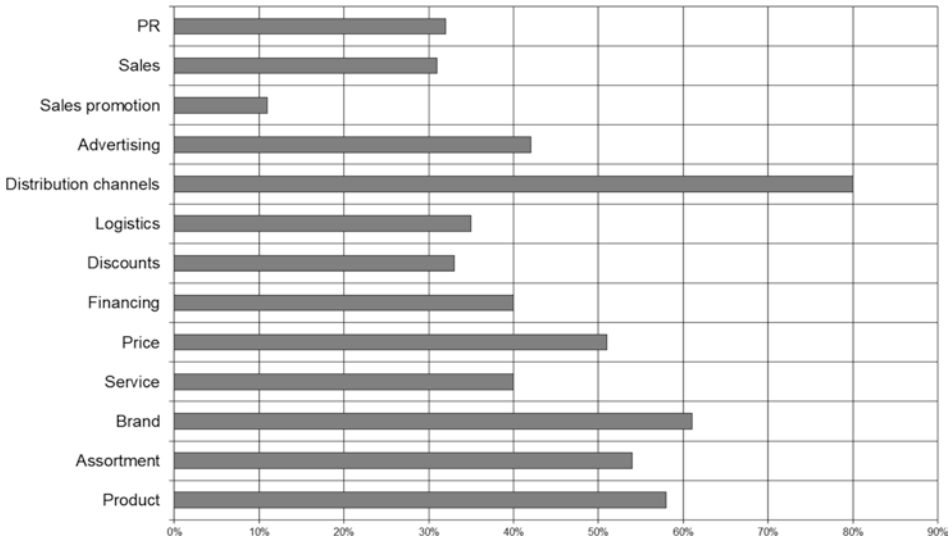
Fig. 110 Strategic parts of the marketing mix

As is often found, sales promotion (SP) is used as a rather operative marketing mix instrument. Distribution channel decisions are strategically significant in this case. Again, the strategic toolbox is used to determine the marketing mix strategies. You also compile the individual marketing mix strategies completely (all options and alternatives) for your product market. Then enter the competitor's marketing mix strategy (strategy focus) and compile your own marketing mix strategy alternatives (see Fig. 111).

Strategy elements	Strategy alternatives			
Assortment strategies	Full-range strategy	Basic-range strategy	Special-range strategy	Cherry-picking strategy
Distribution channel levels	Direct	Indirect	Combination	
Distribution channel focus	Intensive	Selective	Exclusive	
Own distribution channels	Call Center	Sales representative	KAM	Web shop
External distribution channels	Retailer	VAR	Partner	Commercial agent
Distribution strategies	Push strategy	Pull strategy		
Pricing strategies	High-price strategy	Low-price strategy	Skimming-price strategy	Penetration-price strategy
Service strategies	Before purchase decision	During purchase decision	After purchase decision	
External sales support	Trade associations	Universities	Industry consultants	Technology institutes
Sales promotion strategies	Trade-related	Customer-related	Staff-related	

Fig. 111 Marketing mix strategy development (excerpt)

Of course, in practice you will find a large number of marketing mix elements and the associated strategies. I have briefly compiled the most important ones for you, in order to at least create clarity about the distinction between short-term tactical measures, which can then be found in the implementation of the strategies in the action plan, and long-term strategic thrusts, which are used in the strategic toolbox to develop the strategy.

5.3.1 Pricing Strategies

Longer-term **pricing strategies** can include:

- High-price strategy
- Low-price strategy
- Penetration-price strategy
- Skimming-price strategy

The price range prevailing on the product market and covered by competitors C1, C2 and C3 forms the starting point for the price strategy to be chosen in the price strategy decision and the base or basic price (see Fig. 112).

With the high-price strategy or low-price strategy you orientate yourself in the price fixing at the upper or lower price range and keep the product price at this level for a longer period of time.

The skimming-price strategy is based on the willingness of customers or market segments to buy at a high price. Purchasing power groups also play a role in this context. Here, you set the price above the existing price range and skim off the customer group that
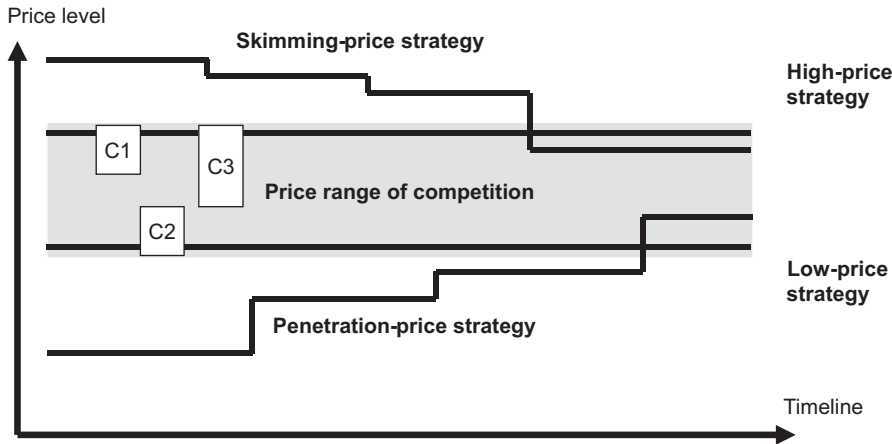
Fig. 112 Alternative pricing strategies in the product market

is willing to buy at this price. Once this customer group has been skimmed off (this pricing strategy is therefore also referred to as a skimming-price strategy), you lower the price further and skim off the next customer group. Increasing competitive pressure and increasing market penetration are also factors you need to consider when lowering your price.

Use this strategy especially when:

- enough customers are price insensitive,
- the product life cycle of your product is rather short,
- you want to achieve a high contribution margin,
- production and distribution capacities are limited.

This pricing strategy works if, for example, one has a clear lead over the competition in terms of time in the case of product innovations, or if the product benefits are dominant.

The market penetration-price strategy is used if you want to penetrate your product market quickly and persuade many customers to buy in the short term (market penetration). The aim here is to achieve high sales volumes at low unit costs. Set your product price well below the existing price range and then gradually increase it, usually in connection with increased product/service performance and/or marketing adjustments.

Use this strategy especially when:

- there are rapid reactions to price differences,
- you can improve the contribution margin situation by reducing costs,
- you expect a quick response from the competitor,
- there is a high proportion of price-sensitive customers,
- you want to penetrate the product market quickly.

Quantity effects and results from experience curve analysis play an important role in this strategy variant.

Example: Use of the market penetration price strategy

A product manager's objective in launching a new service card in the financial services sector was to achieve rapid penetration of the product market. The decision for a market penetration pricing strategy was quickly made. The service card was equipped with standard services. The individual stages of the market penetration strategy for the following years were put together in a strategy meeting with the product team.

Phase 1: The first year was completely free of charge (no annual fee). A credit balance on the service card even earned interest.

Phase 2: In the second year, an annual fee was scheduled, but it was still around 50% lower than the competitive average. Interest on credit balances was limited to a minimum balance. As a kind of quid pro quo, the scope of services was extended by some additional services. The spending limit was also increased.

Phase 3: In this phase, the annual fee was adjusted to a price level comparable with the competition and interest was eliminated completely. This step in the market penetration pricing strategy was also compensated with additional services.

5.3.2   Distribution Strategies

With the distribution strategies you can essentially distinguish between

- push strategies and
- pull strategies.

A **push strategy** means that your product is pushed through the distribution system (e.g. wholesale and retail) by means of your own sales organization. You, as the product manager, operate with a focus on a trade-oriented marketing strategy. The preference for your product is created in the trade. A **pull strategy** means that in order to increase demand and purchase preference, you focus the marketing strategy on the buyer. Your product is pulled through the distribution channels, so to speak (demand pull). In practice, you usually use both strategies simultaneously. However, set the focus on pull or push (see Fig. 113).

You can also choose between

- direct and indirect distribution, and
- intensive, selective and exclusive distribution.

Direct distribution means that your product is marketed by means of your own sales organization, without the intervention of sales intermediaries (e.g. dealers, value added resellers, etc.). In direct distribution, all the tasks and functions involved in distributing your product or product group to the end user are performed by the company itself. **Indirect distribution** then means using sales intermediaries. In this case, you have all or most of the distribution tasks and functions performed by external, legally and economically independent distribution channels.

By deciding on **intensive, selective and exclusive distribution,** you determine the extent of the distribution density. The distribution density is an expression for the number of distribution channels that carry your product. Intensive distribution is when you use as many or even all available distribution channels as possible for your product marketing. Selective
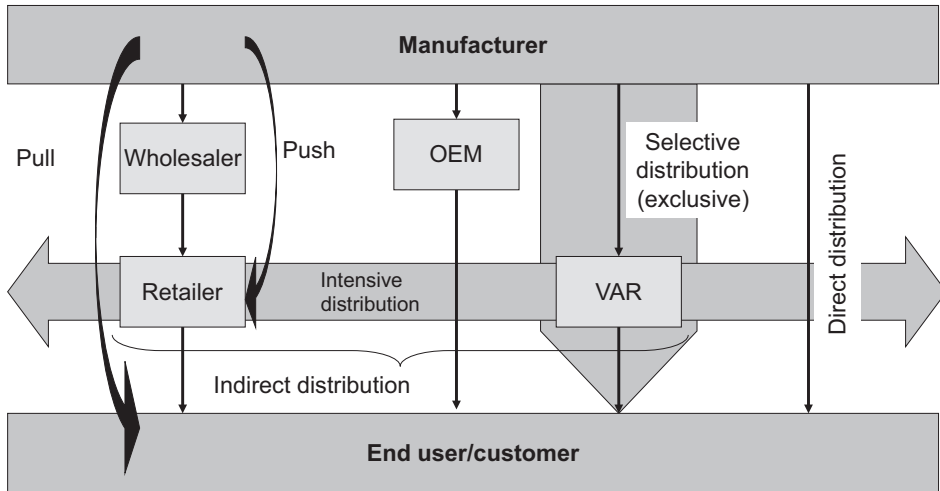
Fig. 113 Alternative distribution strategies in the product market

means a specific restriction or even the use of only one specific distribution channel. You can also equip distribution channels with exclusivity rights (exclusive distribution).

Example: Change of distribution strategy

As part of an analysis of the distribution structure, a product manager determined that in the next few years the focus of the sales volume in the product area will primarily go via the OEMs (original equipment manufacturers). Distributors, technical retailers and other previously used sales channels will become less important. This analysis was supported by numerous studies as well as interviews with experts and customers. As a result, the distribution strategy for this product was changed. For the OEMs, emphasis was placed on key account management. Step by step, resources were shifted to the OEM channel.

The distribution structure analysis on which the decision was based is shown in simplified form in Fig. 114.

All major product suppliers and distribution channels were analyzed and the flow of goods was presented in the current situation. A forecast for the next four years showed that the share of OEMs in the distribution volume of end users/customers will increase from 10% to 20 up to 25%.

The percentages only show the share of the individual distribution channels of the volume sold to the end user/customer. To date, 30% of the total annual volume (total market) is sold to the end customer by retailer. The shares that the retailer obtains from the wholesaler and directly from the manufacturers are not listed here. In practice, it makes sense to show the total flow of goods also broken down by individual manufacturers. Based on this analysis, you can also calculate the shares of your own product per distribution channel (distribution shares). A distribution share of 45% in the retailer sales channel means that 45% of 100% of the products purchased by the retailer are your own products. Different distribution shares per distribution channel give you an indication of the effectiveness of your product marketing per distribution channel.
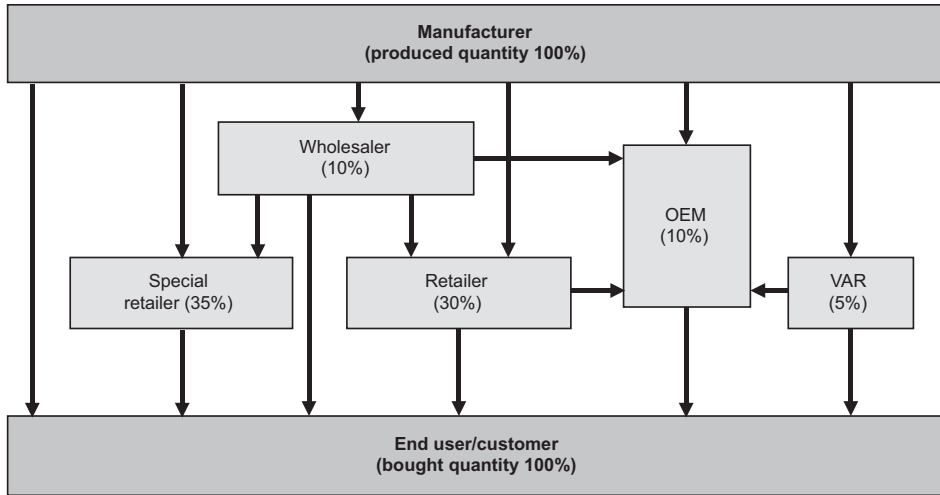
Fig. 114 Distribution structure analysis (excerpt)

5.3.3 Assortment Strategies

You can differentiate between the following **assortment strategies**

- Full-range strategy,
- Basic-range strategy,
- Special-range strategy and
- Cherry-picking strategy.

With a full assortment, you aim for a high assortment depth and breadth. A comprehensive assortment in which all articles and article groups can be found is your goal. With the basic assortment you limit the complete coverage to standard or basic articles. These are usually the most common articles and article groups.

With a special assortment, you concentrate on one or a few article groups; however, you strive for maximum assortment depth. "Cherry Picking" as a strategy tries to take individual articles out of the assortment context and market them (see Fig. 115).

5.3.4 Other Marketing Mix Strategies

In addition to the marketing mix strategies already outlined, there are many other strategic focal points that you can set as a product manager. When defining your product-related service, you can, for example, place the focus of the service before, during or after the customer's purchase decision. You can also list different service levels as alternatives in the strategic toolbox. You can set strategic priorities for sales promotion, depending on whether you want to focus your sales promotion activities on your own staff (e.g. sales representatives), on retailers, or on customers directly. Different alternatives can also be
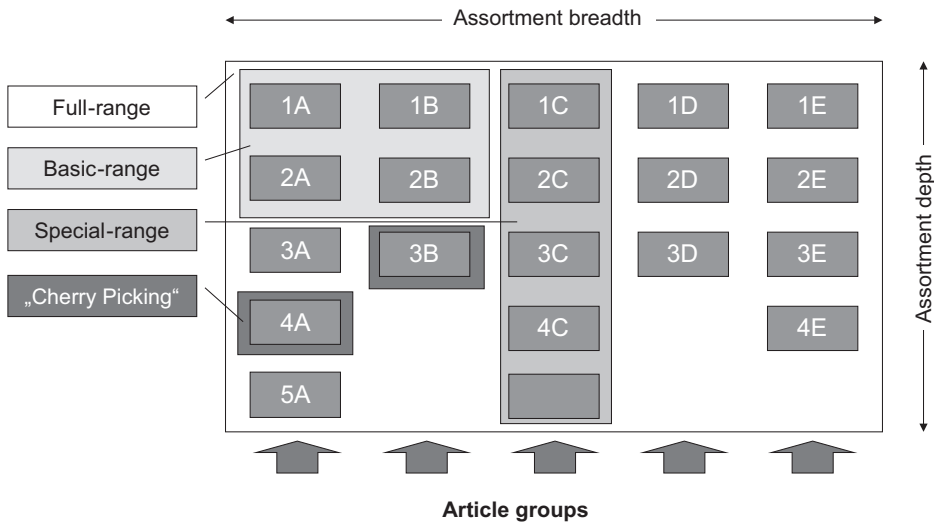
Fig. 115 Alternative assortment strategies in the product market

Strategy elements	Strategy alternatives			
Market segmentation	Niche	Differentiated	Undifferentiated	Selective
Business system	Physician	Pharmacy	Patients	Hospitals
Physician segments	Internist	Oncologist	Pulmonologist	Surgeon
Hospital types	University hospital	State hospital	District hospital	Specialty hospital
Hospital size (beds)	Over 100	50 to 100	Below 50	All
Pharmacy segments	Public	Hospital	Depots	Practice
Type of demand	New	Replacement	Expansion	Consumption
Functions	Diagnosis	Treatment	Prevention	
Disease types	Respiratory tract	Urinary tract	Digestive system	…
Service (USP)	Costs	Information	Consulting	…
Product (USP)	Effect	Dosage	Side effects	…
Competitive behavior	Aggressive	Neutral	Defensive	

Fig. 116 Strategic toolbox for developing the product strategy (excerpt)

derived for discount systems. Functional discounts, quantity discounts, time discounts, loyalty discounts, etc. not only represent alternatives for you as a product manager, but can also be combined as part of a strategy alternative.

The strategic toolbox of a product manager from the pharmaceutical sector looks as shown in Fig. 116.

5.4   Evaluation of the Strategy Alternatives

You can use the utility methodology to evaluate your alternative product strategies. The criteria for evaluating the strategy alternatives are, of course, your defined product goals. Again, you can weight the product goals differently. The suitability of a strategy alternative varies depending on whether your primary goal is growth or profitability. Frequently pursued goals in product marketing, which you must take into account in the weighting of the individual product objectives are:

- Contribution margin maximization
- Maximizing return on investment
- Maximizing return on sales
- Break-even point considerations
- Revenue maximization
- Sales maximization
- Market coverage maximization
- Quality leadership
- Price leadership
- Cost leadership
- etc.

When setting priorities by weighting, you must also take into account the interdependencies of the individual goals.

As the example in Fig. 117 shows for calculating the goal achievement index of different strategy alternatives (strategies 1, 2 and 3), the relevant product goals are first determined and weighted (W), since not all product goals are equally important for you as a product manager and for your company. Weighting scales of five points (5 … very important to 1 … not very important) or ten points (10 … very important to 1 … not very important) are often used. Subsequently, the strategy alternatives are evaluated with regard to the

Product goals	W	Strategy 1		Strategy 2		Strategy 3	
		E	W x E	E	W x E	E	W x E
• Investment goal	8	2	16	6	48	9	72
• Contribution margin goal	6	7	42	6	36	4	24
• Market position goal	8	8	64	8	64	7	56
• Quality goal	10	6	60	10	100	10	100
• Cost goal	6	4	24	5	30	8	48
• Innovation goal	8	7	56	6	48	4	32
• Growth goal	10	8	80	6	60	9	90
• Sales goal	8	6	48	8	64	3	24
• Synergy goal	6	9	54	4	24	6	36
Goal achievement index			**444**		**474**		**482**

Fig. 117 Strategy evaluation by means of utility analysis

degree of goal achievement. In doing so, you evaluate (E) the extent to which the strategy alternative achieves the respective product goal. Here, too, rating scales with five points (5 … very good to 1 … very poor) or with ten points (10 … very good to 1 … very poor) are usually used. The value calculated by multiplying the weighting and the evaluation (W × E) and forming the column sum is the goal achievement index of the strategy alternative.

You can evaluate the degree of goal achievement of a strategy alternative qualitatively (for example, when estimating synergy goals between products), but you can certainly calculate other degrees of achievement, such as revenue goals and contribution margin goals, in several variants.

Example: Evaluation of different product strategies

For the quantitative evaluation of alternative product launch strategies, the product manager of a hardware manufacturer developed a simple strategy simulation model. The new product from the storage media product group was sold exclusively in the B2B market. The business unit management specified that the product marketing and the launch strategy should be oriented towards profit maximization (contribution margin II). As strategy alternatives, an undifferentiated product market strategy for the entire B2B market and a differentiated product market strategy (a differentiated strategy for each individual segment) were examined.

Several meetings in the product management team (consisting of product manager, sales, marketing, technology and finance) provided the following initial data:

- With an undifferentiated strategy, a sales share of 10% was expected.
- The total sales volume was estimated at 808,000 units per year.

When segmenting the product market, the industry segments, the sales volume (units per year) and the product suitability were determined (see Table 10).

The product suitability was calculated by a product benefit index calculation for each market segment and then the market segments were divided into the three product suitability classes (high, medium, low). Depending on the degree of product suitability, the

Table 10 Industry segments, sales volume and product suitability level

Market segment	Sales volume	Product suitability
Electronics	132,000	High
Mechanical engineering	126,000	Medium
Vehicle construction	74,000	Medium
Banks	154,000	High
Metal processing	104,000	Medium
Chemical/pharmaceutical	72,000	High
Insurances	52,000	Medium
Energy suppliers	62,000	Low
Consumer goods	32,000	Low

differentiated strategy was able to achieve 25% sales share for market segments with high suitability, 20% for medium suitability and 15% for low suitability. The product price was 150 €, the average contribution margin I was 20 €. Product-related fixed costs were estimated at one million €. Differentiation costs were given by marketing and sales as 150,000 € per segment. These differentiation costs were classified as variable product costs and included additional communication expenses in industry-specific media, trade fair appearances, sales force training, etc.

The computational model used for the strategy simulation was as follows:

Revenue
- variable costs
= CM I
- fixed costs
= CM II

When calculating the contribution margin II (CM II) for each strategy variant, the following result was obtained:

Undifferentiated strategy: CM II: € 616,000.
Differentiated strategy (all segments): CM II: € 1,146,000.

It was thus clear that a differentiated strategy, at least as far as the contribution margin was concerned, was clearly the better alternative. In addition, further goals for the evaluation of the strategy alternatives were used in the strategy evaluation model by means of the utility analysis.

6 The Result: Content and Structure of a Product-Related Business Plan

Every company has its own specific business plan for use in product management. If you do not yet have a business plan for your product management, you can put together a suitable, individual business plan from the following contents and structures.

This product-based business plan should cover the following areas:

- Product market analysis and results
- Product market strategies (incl. goals) and evaluation
- Measures and action planning
- Business parameters

Most product-based business plans have the following outline structure:

- Description of the initial situation
- Presentation of the market situation/trends
- Presentation of the product situation/trends
- Compilation of opportunities and threats

- Presentation of the product market strategy
- Key business figures
- Action and target plans
- Controlling data
- Support activities
- Timing

The individual contents per bullet point are usually defined very individually.

Example: Outline structure and contents of a product-related business plan

1. **Description of the initial situation**
   – Product description
   – Author

2. **Presentation of the market situation/trends**
   – Customers, buyers, users …
   – Purchase criteria and purchase processes
   – Direct and indirect competition
   – Current competitor strategies and goals
   – Market shares by revenue and sales volume
   – Distribution network and sales structure
   – Other market participants (business system)
   – Environmental factors, trends and developments

3. **Presentation of the product situation/trends**
   – Description of the product/product group
   – Technical data/test data
   – Comparisons with competing products
   – Product trends and developments

4. **Compilation of opportunities and threats**
   – Strengths and weaknesses in a competitive comparison
   – Analysis of trends and developments
   – Derivation of the central opportunities and threats
   – Exploitable market opportunities
   – Main problems/challenges

5. **Presentation of the product market strategy**
   – General guiding principle (corporate level)
   – Qualitative and quantitative goals
   – Competitive advantage (USP)
   – Basic strategy
   – Segment strategy
   – Regional strategy
   – Positioning strategy
   – Marketing mix strategy
   – Product
   – Price

    – Place
    – Promotion
    – etc.

6. **Key business figures**
    – Revenue, sales volume/forecast
    – Budgets
    – Contribution margin calculation
    – Break-even point calculation
    – Risk assessment (technical, economic, company)
    – Investments

7. **Action plans and targets**
    – Action plans
    – Target plans
    – Budget plans
    – Schedules

8. **Controlling data**
    – Main control objectives for reporting purposes (marketing, financial …)
    – Main risks to be observed (internal, external)

9. **Support activities**
    – Functional support activities (functional departments …)
    – External support activities

10. **Timing**

The compilation of a business plan is a complex process. In addition to strategic decisions, the business plan contains many detailed aspects from functional areas (sales, marketing, service, logistics …).

Of course, it makes no sense to create the business plan by formulating each functional area's contribution and then tying to put these together into a package. Often, however, plans are actually developed in this way. However, such business plans do not work very well in practice.

7   The Implementation: Checklist for the Identification of Optimization Potentials

Now it is your turn again. Here, too, you can identify the central optimization potentials with the help of the checklist (see Table 11). When optimizing product marketing, you have the advantage that you have considerably more influence and options in some points. You also have the tools and instruments already presented at your disposal, which you can use immediately.

Table 11 Product marketing checklist

	Applies	Applies little	Does not apply
1. We have identified the structural elements for our products in our company and clearly structured the product markets.	☐	☐	☐
2. The control variables for our product marketing have been identified and integrated into marketing controlling.	☐	☐	☐
3. The majority of our products/brands are among the number of relevant alternatives when making purchasing decisions.	☐	☐	☐
4. The product benefit of our products is clearly worked out and the USP is communicated in the product advertising.	☐	☐	☐
5. Our products/brands have a clear and independent positioning compared to competition from the customer's point of view.	☐	☐	☐
6. Our sales department has all the necessary tools (sales manual ...) to sell the product efficiently to the customer.	☐	☐	☐
7. Our product has an optimal price-performance ratio in a competitive comparison.	☐	☐	☐
8. We measure product-related customer satisfaction on a regular basis and incorporate the results into product marketing.	☐	☐	☐
9. We know the market and sales figures for our products and product markets.	☐	☐	☐
10. Product planning with profitability analysis on an annual basis exists for all our products.	☐	☐	☐
11. We regularly review our products in order to exploit cost reduction and contribution margin optimization potentials.	☐	☐	☐
12. We have clarity about the key strengths and weaknesses of our products and about the specific opportunities and threats in the product markets.	☐	☐	☐
13. We know the relevant control variables and influencing factors in our product markets.	☐	☐	☐
14. For each product there are product goals and a detailed product strategy, which are broken down to the level of the marketing mix strategy.	☐	☐	☐
15. We develop strategy alternatives for each product and evaluate them according to the product goals.	☐	☐	☐
16. There is a comprehensive business plan for each product, which is revised annually.	☐	☐	☐
17. We regularly carry out detailed analysis of our product areas to optimize the product groups and the product portfolio.	☐	☐	☐

Process-Oriented Product Management: Work Processes, Process-Oriented Marketing and Innovation Management

1   Creating Clarity: How Product Managers Make Their Work Process-Oriented

You can divide your work processes as a product manager into temporary and permanent work processes. Your temporary or time-limited work processes usually take place in a fixed period of time. One important work process is product planning (see Fig. 1).

Product planning includes the following process steps:

- Structure formation
- Information gathering
- Product market analysis
- Strategy development
- Product planning Goal agreement
- Presentation

These process steps, which take place within the framework of your product planning, are aligned in terms of time with the higher-level corporate planning process. They are run through once a year and end in a joint agreement on goals between you and the management (e.g. MD, CEO …) or, in the case of companies with business units, with the business unit management. The permanent work processes are not limited in time and the individual tasks contained therein are to be fulfilled by you continuously.

Permanent individual tasks may include:

- Implementation support
- Product controlling
- Implementation management and coordination
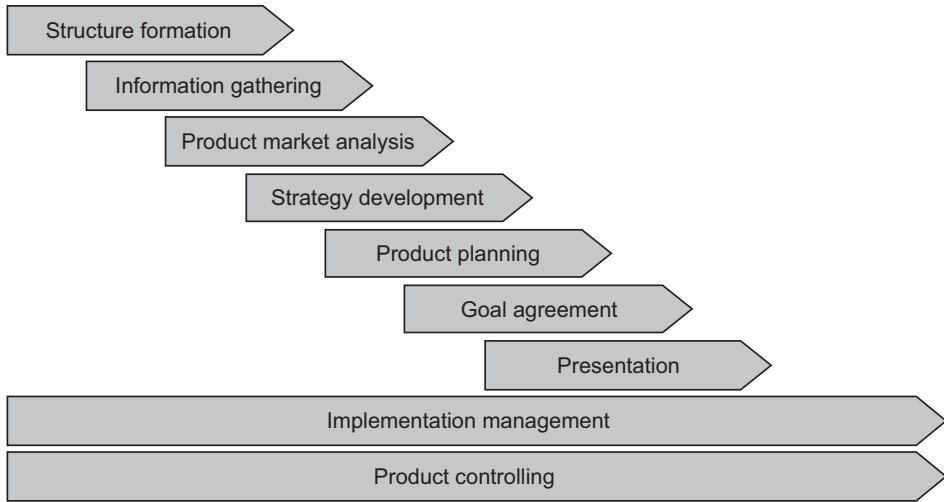
Fig. 1 Product planning and sub-steps

As a product manager, you are the process manager for these work processes. This function of the process management takes a high value, because you usually do not work alone, but in the product team, and also have to bring the functional areas on board. You are responsible for the fulfillment of the individual tasks within the process steps.

1.1 Temporary Work Processes

The individual tasks and activities of a product manager within the temporary work processes are listed and presented in detail.

1. Structure formation
   – Segmentation of the product market
   – Segmentation of the product group
   – Segmentation by geography/regions
   – Formation of the product market matrix
   – Formation of the product market regional matrix (relevant for international product management)
   – Formation of the function technology matrix (if necessary)
   – Derivation of product market combinations (planning units)
2. Information gathering
   – Collection of secondary statistical data/information on the product market
      – internally within the own company and
      – external sources of information.

- – Collection of primary statistical data/information on the product market through market research
    - – on the product market,
    - – about competitors in the product market and
    - – about trends and developments in the product market.
3. Product market analysis
    - – Carrying out different analysis
        - – Positioning analysis
        - – Product benefit analysis
        - – Product benefit index calculations
        - – Market and sales figure analysis
        - – Contribution margin analysis
        - – Customer satisfaction analysis
        - – Analysis of cross-selling rates (economies of scope)
        - – Portfolio analysis
        - – SWOT analysis
        - – Influence matrix
        - – etc.
    - – Evaluation and summary of the analysis results
4. Strategy development
    - – Compilation of goals for the product market
        - – Quantitative goals (revenue, contribution margin, market share ...)
        - – Qualitative goals (awareness, positioning goals ...)
    - – Development of the product strategy
        - – Set-up of the strategic toolbox (basic strategies, marketing mix strategies)
        - – Identification of competitor strategies
        - – Development of own strategy alternatives
    - – Evaluation of the strategy alternatives and selection of the product strategy
    - – Preparation of the business plan
5. Product planning
    - – Development of detailed short-term tactical plans (annual plans)
        - – Action plans
        - – Target plans
        - – Budget plans
        - – Schedules
        - – Cost plans
        - – etc.
    - – Development of rough plans for the period of another 1–2 years (rolling planning)
6. Goal agreement
    - – Agreement on goals with the upper management levels
        - – Management of the top-down and bottom-up process

      – Conducting negotiations and goal agreement meetings (management, business unit management, head of product management)
- Goal agreement with the operational/functional units
  - Management of the top-down and bottom-up process
  - Conducting negotiations and goal agreement meetings (functional areas, sales branches, external partners (as far as not conducted by sales) etc.)

7. Presentation
   - Presentation of the business plan and product plans to the company
   - Management, business unit management, management team
   - Functional areas
   - Sales offices/country subsidiaries
   - Employees
   - Presentation/verification selectively to customers
   - Presentation (selective) to external partners
     - Trade/distributors
     - Sales partners
     - Cooperation partners(e.g. development partners)
     - Agencies/authorities
     - Suppliers
     - etc.

1.2   Permanent Work Processes

The individual tasks and activities of the product manager within the permanent work processes are listed and presented in detail.

1. Your tasks as a product manager in implementation management
   - Implementation management and coordination (internal and external)
     - Briefings
     - Prioritization
     - Crisis meetings
     - Conflict management
     - etc.
   - Implementation support (internal and external)
     - Participation in critical implementation measures (selective!)
     - Intervention in critical implementation projects
     - etc.

Implementation means the execution of the defined measures and strategies. The individual activities that you carry out as part of the implementation management cannot, of

course, be described exhaustively here. Above all, the interface definition and division of tasks between the functional areas and you as product manager play a major role.

2. Your tasks as product manager in product controlling
    –   Regular monitoring of the achievement of goals
    –   Determination of target/actual deviations
    –   Root cause analysis in case of deviations
    –   Development of countermeasures
    –   Report to the relevant management levels (escalation principle)
    –   Information to the persons responsible for the implementation

In product controlling, you compare the actual values (goals, budgets, deadlines ...) with the default values from your product planning and goal agreement (target values), analyze deviations and initiate appropriate corrective measures. Goals (target values) only serve their purpose if you constantly monitor their achievement. Only by constantly comparing what has been achieved with the goals (target/actual comparison) is it possible for you to steer operational implementation in the desired direction through corrective measures.

As a product manager, you regularly go through the controlling cycle (see Fig. 2).

Your product controlling does not stop with the simple determination of a deviation (control of target/actual comparison). You must also investigate the cause of this deviation (cause determination). Your determination of the cause within the scope of a variance analysis can result in the recognition

•   that the implementation is poor,
•   that the measures in the product plans are not having the expected effect,
•   that the goals are too ambitious, or
•   that there have been significant changes in the product market and you need to rethink the entire product strategy.
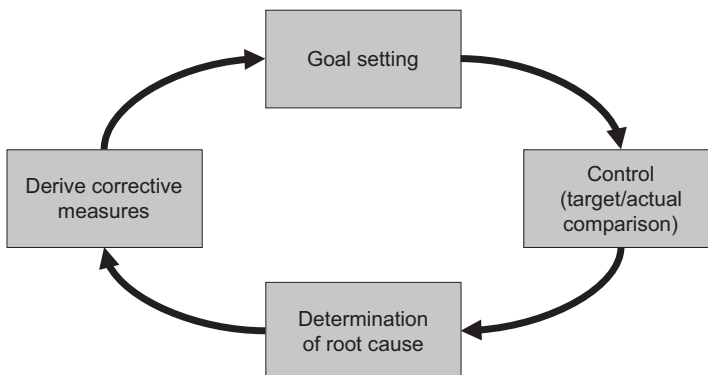
Fig. 2   Product controlling and controlling cycle

In doing so, you need to set a new product marketing process in motion. This process starts in the phase in which a correction is necessary according to the result of the variance analysis.

You may therefore come to the following corrections:

- Correction of the implementation/execution
- Correction of the plans
- Correction of the goals
- Correction of the strategy

In the context of product controlling, the product manager is often faced with the question of the extent of the deviation at which information should be sent to higher management levels. You can simplify the answer to this question if you define tolerance limits already during planning. With these tolerance limits, you define the extent of the negative and positive variance that can still be tolerated for each critical controlling variable (see Fig. 3).

In this example, three tolerance limits have been set. If the deviation remains within the first tolerance, no information is sent to other management levels. You try to determine the cause of the variance independently through variance analysis and derive countermeasures. If the first tolerance limit is breached, the head of product management is informed. A joint attempt is then made to make a course correction. If this does not succeed and the third tolerance limit is breached, the company's management is informed immediately. In this case, the extent of the deviation threatens to become so great that the company's success can be affected. In practice, it has been shown that setting and communicating tolerance limits also have a disciplinary effect. Product management and functional areas jointly attempt to make corrections at an early stage in order to avoid escalation.
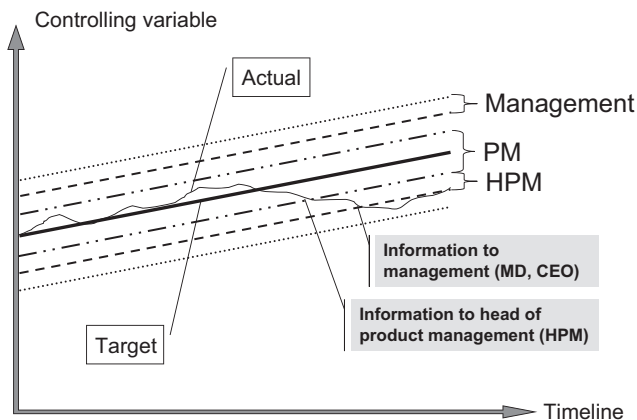
Fig. 3 Definition of tolerance limits

2   Always on the Ball: The Development of Measures for the Design of the Product Life Cycle

Products and product markets are in a permanent state of change. The dynamics of change are, depending on the product market, more or less predictable. For you as a product manager, this dynamic makes it necessary to take a more process- and phase-specific view of the development of product markets and your own product. To better understand these dynamics, there are several phase/process models available to you. The most important model is the life cycle model.

2.1   The Life Cycle Model

The life cycle model is a model that you can use to map the development of your product's revenue or sales over time. You can further divide the ideal-typical course of the resulting life cycle curve into different life cycle phases (see Fig. 4).

In addition to the revenue or sales progression, you can also include the progression of the contribution margin in the life cycle analysis. Life cycle curves can have different characteristics. The length and the course depend very much on your product and your product market. The duration of the individual life cycle phases also varies. Figure 5 shows the life cycle of a product from the telecommunications industry (B2C).
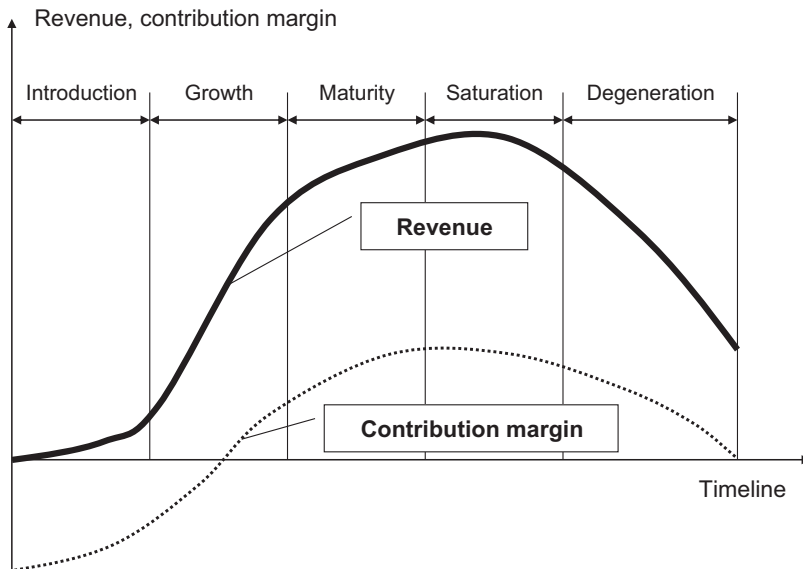
Fig. 4 Life cycle model and life cycle phases
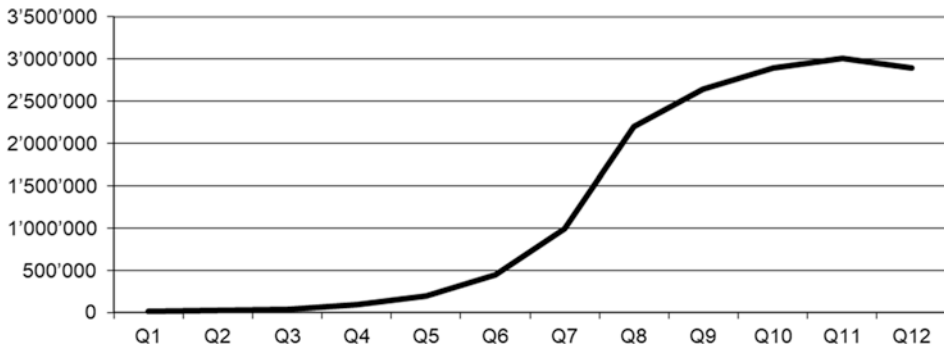
Fig. 5 Course of the life cycle of a product

The course of the life cycle is based on the number of customers acquired (B2C). The introduction phase and also the growth phase of the product on the market last approximately one year. The product, as you can clearly see, is currently in the maturity/saturation phase.

1. Introduction phase

   The launch marks the beginning of your product's life cycle. In the introduction phase, revenue of your product is typically low and the contribution margins are low or negative due to the usually high launch costs. This phase also determines whether your product will be accepted by the market or develop as a flop.
2. Growth phase

   This phase is characterized by rapid revenue and contribution margin growth. The marketing instruments you used in the introduction phase take effect and your product develops a strong diffusion on the market. The strong increase in growth rates in this phase is shown by the example of a product from the telecommunications sector in Fig. 6.

   The growth phase of this product begins in the fourth quarter and ends in the seventh quarter.
3. Maturity/saturation phase

   The maturity and saturation phases are in some cases considered separately or simply grouped together as the maturity phase. In practice, the distinction is relatively difficult. In these stages/phases, you will see the signs of increasing market saturation. The growth rates and contribution margins of your product are starting to decline.
4. Degeneration phase

   The degeneration of your product begins. The degeneration phase is usually characterized by the fact that the contribution margin becomes negative. A revival of the product in this phase is rather seldom successful.

Other concepts and models also include or are influenced by the life cycle model. Specifically in the context of the market growth/market share portfolio, life cycle analysis
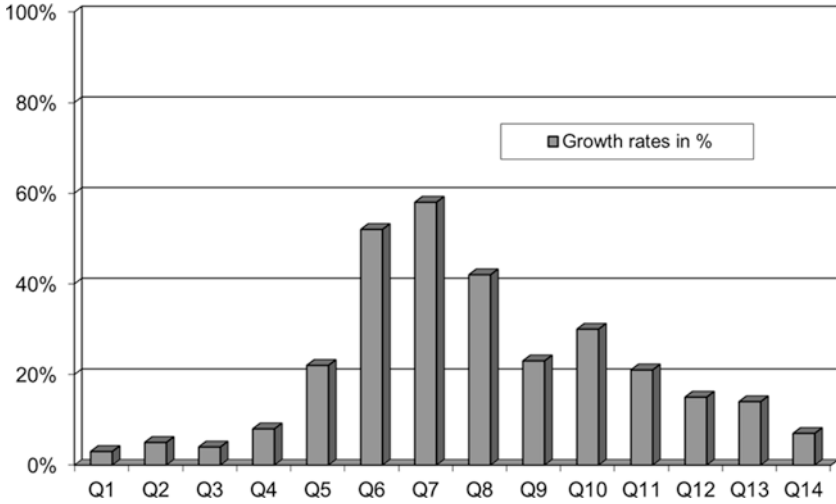
Fig. 6 Growth rates over the life cycle
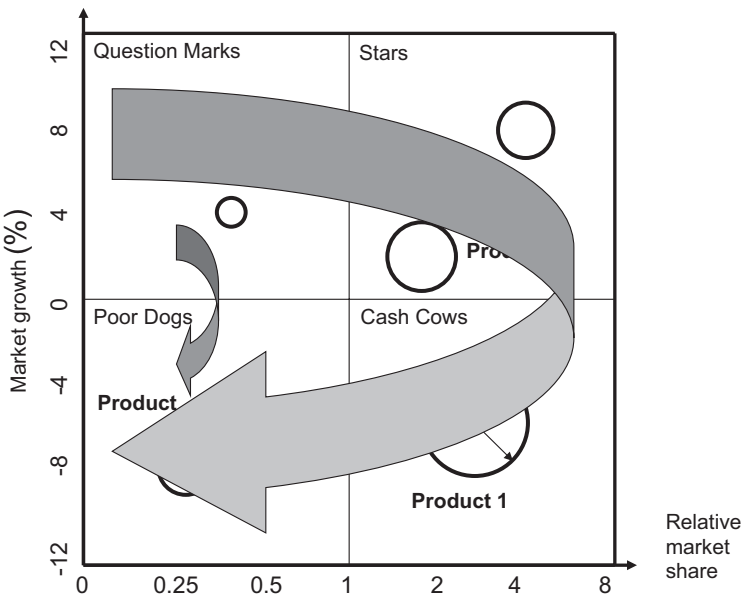
Fig. 7 Life cycle model and portfolio analysis

is mentioned. The life cycle progression is reflected in the movement of products in this portfolio over time: from question mark to star, from cash cow to poor dog. In the case of a flop, the path is somewhat shortened. It goes from question mark directly to poor dog (see Fig. 7).

Fig. 8 Product versus market
life cycle
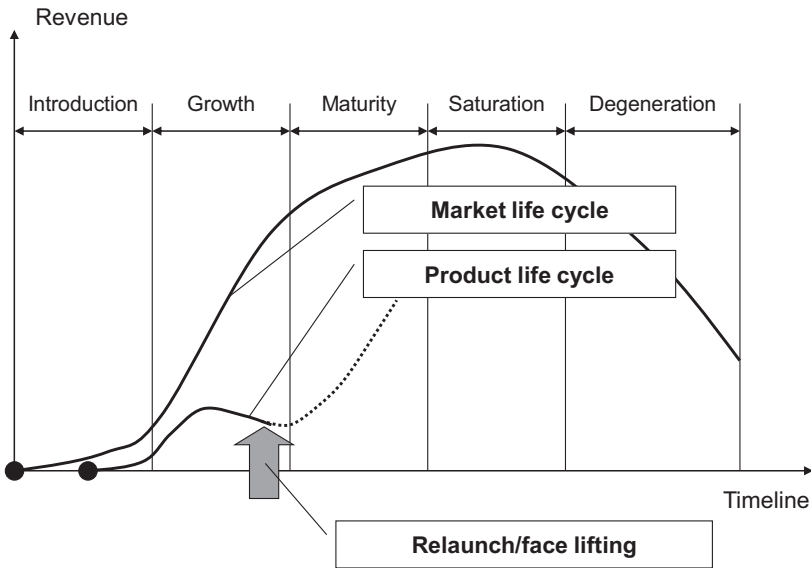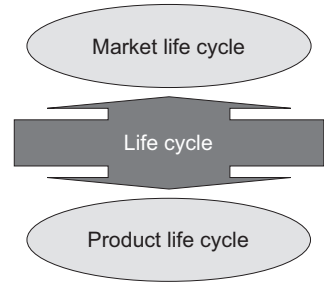
Fig. 9 Comparison of product and market life cycle

2.2   Product Versus Market Life Cycle

When considering life cycles, you will probably also ask yourself what life cycle it is. Basically, you can distinguish between the

- product life cycle of your product and the
- life cycle of the entire product market (see Fig. 8).

The **market life cycle** refers to the entire product market. To determine the market life cycle, you need to look at the sum of the sales or revenues of all products (including competitor products) in your product market over time. The **product life cycle refers** to only one product in that product market. The product life cycle of your product can be represented simply. Your own sales or revenue of the product are shown over time. You can usually see significant differences between market and product life cycle (see Fig. 9).

Your product was introduced into the product market after the competitor's product. It developed in line with the market. Other competitor products were also added in the introduction phase as well as in the growth phase of the product market. Again, the sum of all the revenues gives the market life cycle curve. However, your product had problems in the market and revenue dropped sharply even though the product market was still showing high growth rates. As a product manager, you have to react immediately. Through a relaunch (product, packaging, brand relaunch, etc.) or, in the case of minor problems, through facelifting measures, you must try to get back on track.

To check your product with regard to product and market life cycle, you can use the life cycle matrix. In this matrix, you compare the product life cycle with the market life cycle. The life cycle phase of the product market is used as a factor for the growth dynamics of the market, while the phases of the product life cycle are used to estimate the growth dynamics of your products. The assignment of your products to the individual phases of the life cycle model is usually done by evaluating the development of revenue, sales and contribution margins as well as the relevant market and sales figures (see Fig. 10).

Fig. 10 Life cycle matrix

The products in the diagonal boxes develop analogously to the development of the product market. Product G is above the growth rates of the overall market and is therefore gaining market share. The product market is already in the maturity phase, the own product life cycle still in the growth phase. Product B is a problem case. With the product market in the growth phase, the own revenue development already shows saturation tendencies. The product is losing market share.

2.3   Age Structure Analysis of Products

The life cycle model is a helpful tool to determine the age structure of your products as well. Especially from the point of view of the contribution margin, it has been proven that products in different life cycle phases generate different contribution margins.

The values given in Table 1 are only guidelines. For the purpose of the age structure analysis, you must take into account the specific conditions of the product markets, the competitive situation and your product-related costs.

Example: Change in the product contribution margin in the life cycle phases

When analyzing the contribution margin structure of the products in the company, a team of product managers found that for products in the introductory phase, the contribution margin ranged from −10 to +5%. For products in the growth phase, the value was between +15 and +45%. The values in the maturity/saturation phase varied between +20 and +40%, and in the degeneration phase there was a range of −20 to +10%.

Due to this different contribution margin situation of the products per life cycle phase, it makes sense for you to determine which products are in which phase of the product life cycle. You can then optimize the contribution margin by removing (eliminating) products in the degeneration phase from the product group. A tighter selection of products to be launched on the market not only reduces the number of flops, but also increases your overall profitability.

Example: Elimination of products

In a company from the consumer goods industry, there are clear guidelines from the management for the elimination of products. These are binding for product management. The individual products of the company are reviewed annually according to these criteria and it is determined which products are to be removed from the product portfolio and the product assortments in which time period.

The following criteria and methods are used for this purpose:

Table 1 Life cycle phases and product contribution margin

	Introduction	Growth	Maturity/ Saturation	Degeneration
Contribution margin (CM)	Low, negative	Growing, high	Stagnant, declining	Strongly falling, negative

- Position of the product in the product portfolio
- Contribution margin development
- Revenue development
- Life cycle matrix and age structure analysis
- Position in the growth matrix
- etc.

Determining the age structure of products is relatively easy to perform. You assign the individual products to the life cycle phases and then calculate,

- how many products are in each phase of the life cycle,
- how much revenue is generated with these products and
- how much contribution margin is generated in the process (see Fig. 11).

The number of products is important in that it also gives you an indication of the risk distribution and profile. If you have only a few products in the high volume growth phase, there is a risk that you may not be able to compensate for this volume with new products when these products enter the maturity/saturation and degeneration phase.

The comparison of different product groups of a company in Fig. 12 illustrates the different age structure. Product group 1 (PG1) was established one year ago and all products in PG1 are younger than 2 years. Product groups 5 (PG5) and 6 (PG6) show a well-balanced product age structure. Product group 9 (PG9) shows a strong ageing.

It is obvious that you cannot make a decision on program streamlining based on the results of the age structure analysis alone. However, it undoubtedly provides you with an additional perspective for product management decisions. Optimizing the product age
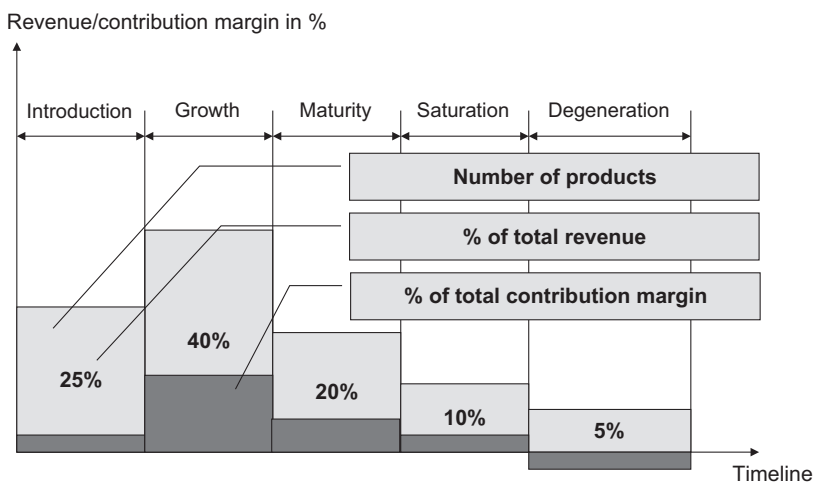
Fig. 11 Age structure analysis of products
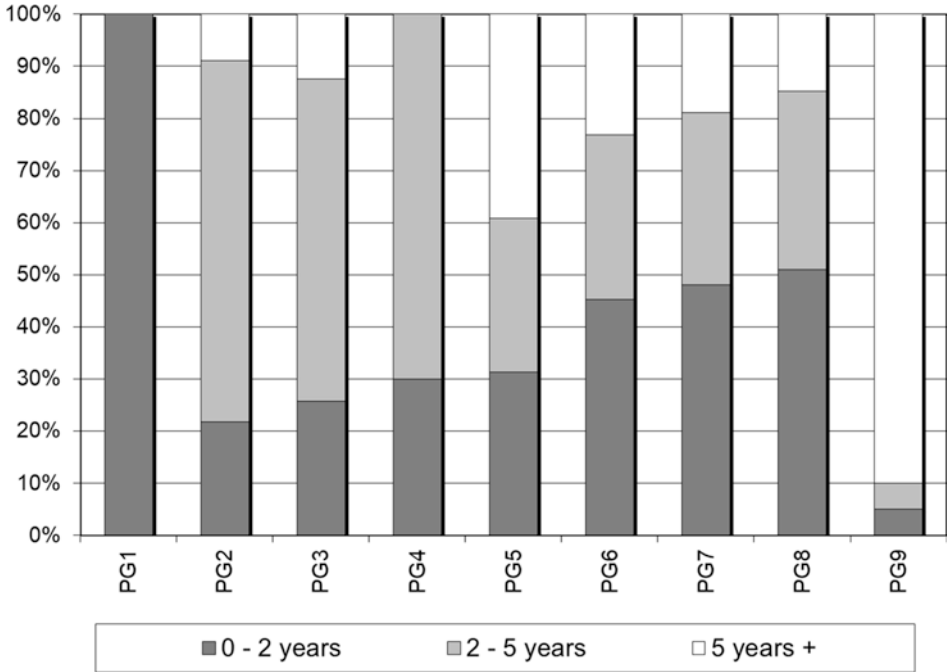
Fig. 12 Comparison of product age structure between product groups
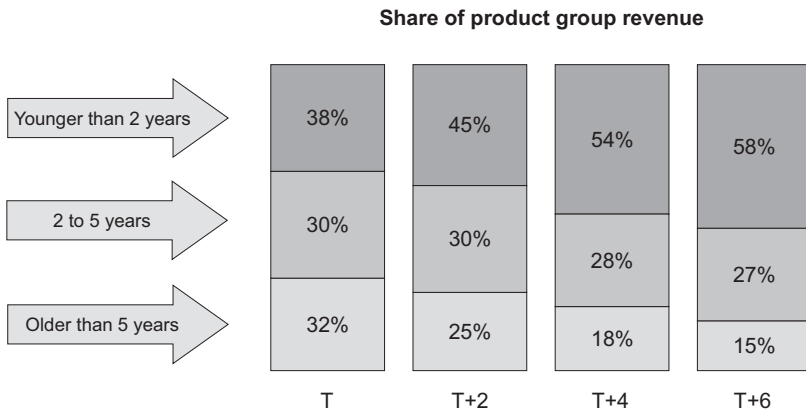
Fig. 13 Optimizing the age structure of products

structure takes time and must be driven by consistent innovation management and an equally consistent elimination of "old" products (see Fig. 13).

The age structure of this product group was changed significantly within a period of around six years. The revenue of new products was increased from a revenue share in the product group of 38–58%, while the revenue share of products older than five years was reduced by half.

2.4 Marketing Mix in the Product Life Cycle

There are also recommendations from practice for you regarding the design of the marketing mix in the individual phases of the product life cycle. You can refer to these recommendations in the planning phase in order to evaluate at least the most important tasks and possibilities of the marketing mix in the individual phases. To do this, you need to be able to assess which phase of the product life cycle your product is in. To help you with this, I have summarized the most important characteristics of the life cycle phases for you (see Fig. 14).

A key feature of the introductory phase is that it is a certain customer types or market segment type that make initial purchases here, which can be described as innovators. Innovators are people who get involved with new products and/or services at an early stage. This type of person has an "innovative" personality profile and is basically positive about new things (see Fig. 15).

In the introduction phase, a key goal for you must be to attract a critical amount of innovators to your new product in order to create a large enough reference potential for the adoption groups that will follow.

Very often, sales is oriented towards the early and late majority when selling new products. These customer groups are usually rather "low-maintenance" compared to innovators. Innovators have a high need for information and support and are therefore associated with greater effort for the sales representatives. Customers from the early and late majority group are also interested in the product, but they are conservative in their purchase decisions and tend to buy products and services that are already established on the market. They rely heavily on references when making purchasing decisions.

Phases of product life cycle			
Introduction	Growth	Maturity/saturation	Degeneration

Criteria	
Revenue growth	Low
Costs	Introduction costs (high)
Contribution margin	Low, negative
Customer types/ market segments	Innovators
Competitors	Few/none

Goals	Product awareness, initial purchases

Fig. 14 Characteristics of the product life cycle phases (introduction phase)
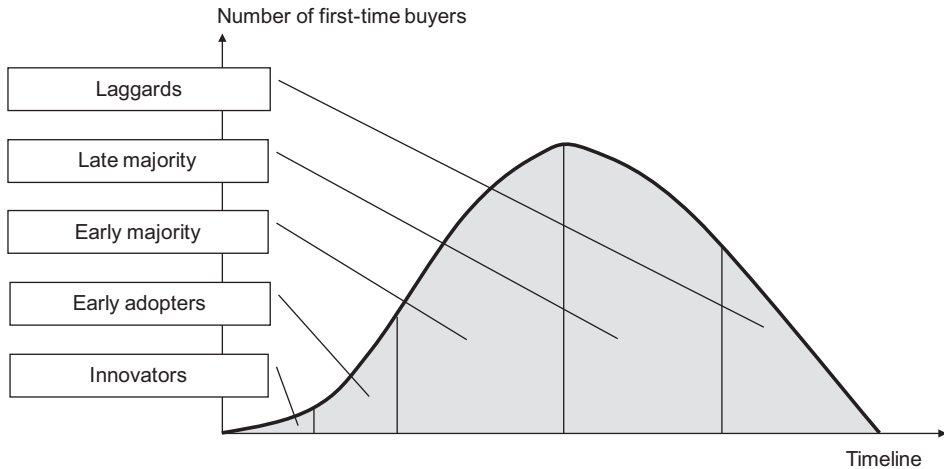
Fig. 15 Adoption groups over time

You can assume the following guideline values for the quantity distribution of the individual adoption groups:

- Innovators : 2–5%
- Early adopters: 10–15%.
- Early Majority: 30–35%.
- Late Majority: 30–35%.
- Laggards: 10–20%.

Example: Identifying adoption groups in the product market
    In preparation for an important product launch for the company, product management and sales attempted to classify customers according to the following customer types:

- Innovators
- Majority
- Laggards

The necessary criteria were identified and each sales representative was asked to classify their customers into this simple grid. A total of around 3500 customers were classified.
    After the second run, the following figures were obtained:

- **Innovators**
    - 4.8%
    - 168 customers
- **Majority**
    - 75.8%

  - 2653 customers
- **Laggards**
  - 19.4%
  - 679 customers

The evaluation of the customers was mainly carried out by determining the buying behaviour in previous product launches, demands of the customer regarding references and personality profile of the persons dominating the buying decision process.

During the introduction phase of the product, sales was required to contact the defined 168 innovators within the first month of the introduction phase. This focus was supported by direct marketing campaigns and the company's call center. Of the 168 innovators, 48 customers were acquired during the introduction phase, thus creating a sufficiently large reference potential for the overall market.

The other phases of the product life cycle after the introduction phase also have special characteristics (see Fig. 16).

The competitive situation also changes greatly during the life cycle. In the introductory phase, you will find no or few competitors, in the growth phase the number is increasing, towards the end of the maturity and saturation phase there is usually a shakeout among competitors.

You can also define different strategies for the product launch strategy:

- Pioneer strategy
- Early entry strategy
- Late entry strategy

	Phases of product life cycle			
	Introduction	Growth	Maturity/saturation	Degeneration
Criteria				
Revenue growth	Low	Rapidly increasing	Stagnant	Declining
Costs	Introduction costs (high)	Set-up costs (medium/high)	Maintenance costs (medium/low)	Reduction costs (low)
Contribution margin	Low, negative	Growing, high	Stagnant, declining	Sharply falling, negative
Customer types/ market segments	Innovators	Early adopters, early majority	Late majority	Laggards
Competitors	Few/none	Increasing	Stable	Declining
Goals	Product awareness, initial purchases	Winning market share	Profit optimization, protection of installed base	Cost reduction

Fig. 16 Characteristics of the product life cycle phases

The pioneer strategy is characterized by the fact that you are the first to enter the product market. Your advantage is that you can shape the product market and, if necessary, also establish certain market standards. You should consistently use the opportunity to build up entry barriers for the competitor (e.g. by contractually binding dealers, exclusivity agreements with customers ...). The early entrant strategy aims to largely avoid launch costs and reduce the risk of flops. As an early entrant, you will still enter the product market during the introduction phase. As a late entrant, you try to enter the product market at the earliest towards the end of the introduction phase and at the latest by the middle of the growth phase.

You can now assign individual marketing mix strategies to the phases of the life cycle. You plan the specific transitions in the strategic focal points in detail in the annual product planning. Figure 17 shows you a simplified example of the marketing mix strategies in the individual phases of the product life cycle.

The design of the marketing mix based on the findings of the life cycle approach assumes that it is sufficient to optimize product awareness by means of introductory advertising in order to generate initial purchases during the product's introductory phase. This approach is very much related to the classic AIDA formula. This model states that as a product manager you must first generate attention (A ... Attention). If the customer is interested (I ... Interest), he will have the desire to buy your product (D ... Desire), and finally realize the purchase (A ... Action). However, this simple model does not always work. You must therefore supplement the determination of the marketing mix from the perspective of the life cycle model with the insights from purchase process management.

Marketing mix strategies	Phases of product life cycle			
	Introduction	Growth	Maturity/saturation	Degeneration
Assortment	Basic-range	Expansion to full-range	Emphasis on articles/article groups, "Cherry Picking"	Selectively eliminate articles
Price	Skimming-price strategy	Transition to high-price strategy	Price similar competition	Selective price reductions
Distribution	Selective distribution	Increase distribution channels	Intensive distribution	Eliminate distribution channels
Communication	Awareness	Image/product advertising	Product advertising (USP)	Maintenance advertising
Sales promotion (SP)	Intensive (trade)	Intensive (customer)	Selective	Sell-off
Demand type	Reference customers (innovators)	New demand	Brand changer, replacement demand, customer loyalty	Increase market potential

Fig. 17 Marketing mix strategies in the life cycle

3   The Supreme Discipline: Active Purchase Process Management by the Product Manager

Product managers are increasingly influencing the customer's buying/purchasing process. They support the operative-tactical sales presentation of the sales representative by developing and implementing a marketing mix that is specifically tailored to the buying process. In contrast to the classic structure of the marketing mix according to the frequently used structure scheme of the four Ps (Product, Price, Place and Promotion) and the AIDA model, as a product manager you are oriented towards the customer's buying process when compiling the marketing mix.

3.1   The Customer Buying Process

As a rule, a customer goes through a decision-making process when deciding to buy a product. You can usually divide these purchase decision processes into different process phases in which different problems of the buyer are in the foreground. Although in some cases you may not be able to clearly determine the demarcation of the individual buying/purchase process phases, the division into individual process phases provides a good structure for analyzing the decision process and for compiling the marketing mix (see Fig. 18).

Likewise, the time required on the customer side from the start of the purchase process to the final purchase decision varies. In the case of purely spontaneous decisions, however, there are limits to the use of purchase process management.

Buying processes begin with the phase of problem or need identification at the customer. In this phase, the customer recognizes the need for a product or service (need
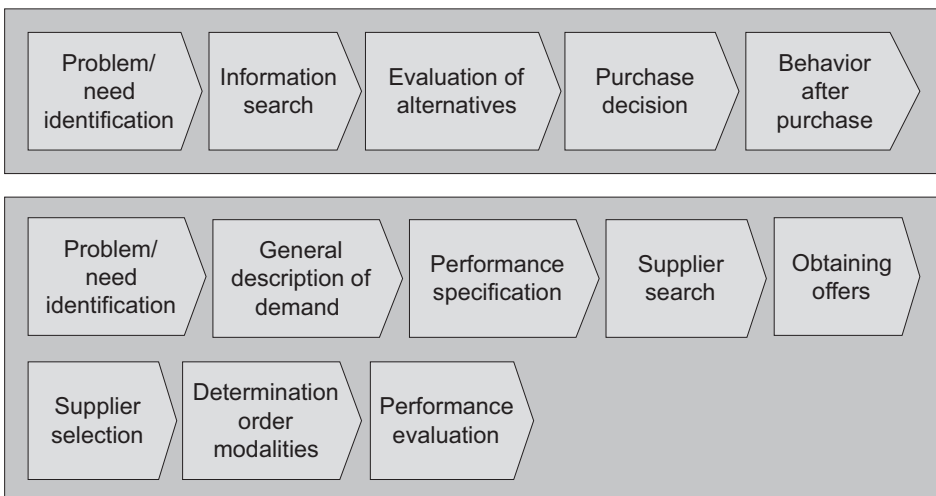
Fig. 18 Purchase processes with different purchase process phases

orientation) or merely identifies a problem (problem orientation) that can be solved with a product that has not yet been specified.

In the case of need orientation, the next phase in the process is usually a specific search for information about products and suppliers, while in the case of problem orientation, the next step is usually a search for a solution to the problem. Due to these different starting situations, you can distinguish between single-step, two-step or multi-step buying processes in the buying process.

Two- or multi-step buying processes have a problem orientation as their starting point. In the first step of the buying process (buying process to find a solution), the customer tries to find the right solution to his problem. In the second step, specific products, services and systems are searched for and selected from the various alternatives (see Fig. 19).

Example: Two-step purchase process for decision making
The first step of the buying process

- **Phase 1: Problem identification**
  A person is urged by a doctor to reduce body weight because being overweight could put that person at risk of serious harm to his or her health or exacerbate existing health problems.
- **Phase 2: Search for alternative solutions**
  The person now thinks hard about how best to achieve weight loss. For this purpose, he or she looks for different alternative solutions. Diet plans, slimming cures, fitness centers, procedures from naturopathy, etc. are identified in this phase.
- **Phase 3: Evaluation of the alternative solutions**
  The different solutions are evaluated and compared by the person concerned on the basis of the relevant criteria to reduce body weight.
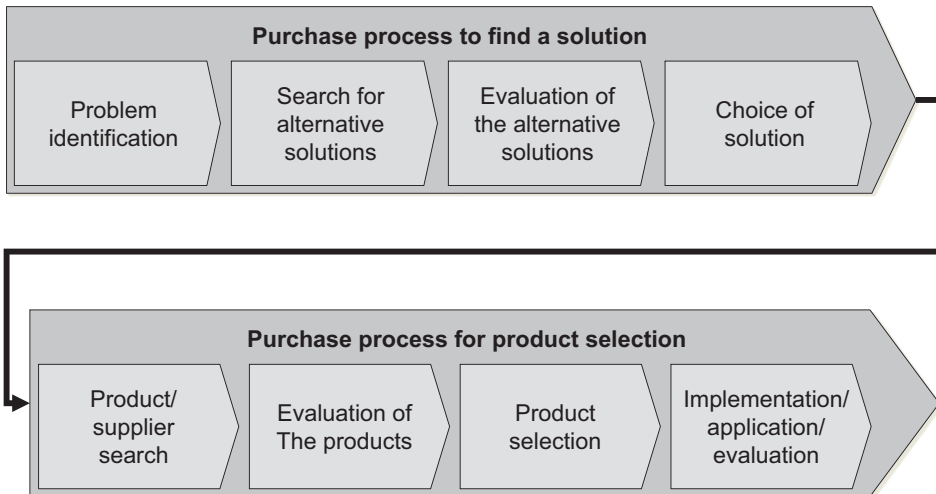
Fig. 19 Two-step purchasing process

- **Phase 4: Choice of solution**

    The person decides to do one of the traditional slimming cures. The first step of the buying process is completed by the solution choice. The buying process triggering has thus taken place for the second step of the buying process.

The second step of the buying process

- **Phase 1: Product/supplier search**

    The person is looking for the most popular slimming cures. Different concepts and scientific approaches characterize these slimming cures.

- **Phase 2: Evaluation of the products**

    The individual slimming cures are evaluated by the person. The person shortlists three slimming cures and also finds out whether the costs of the cure are covered by health insurance. The doctor is also contacted again.

- **Phase 3: Product selection**

    The person makes the decision to buy a slimming cure. The order is placed with the supplier.

- **Phase 4: Implementation/application**

    In the application/implementation phase, the cure is carried out. Any problems that arise are resolved with the general physician (GP) and with the product supplier via the hotline, in the internet chat room and through local support groups.

- **Phase 5: Evaluation**

    This process ends with the final/follow-up examination at the doctor's office. The person was questioned by the manufacturer about his/her satisfaction and attempts were also made to sell further products (e.g. nutritional supplements) via cross-selling measures.

In addition, you can see that different people or groups of people (buying centers) are usually involved in the individual phases of the buying process (see Fig. 20).

In this industrial purchasing process, the management (MD/CEO), purchasing, research and development (R&D), quality, IT, marketing and sales and project management are

Problem/ need identification	Information search	Evaluation of alternatives	Purchase decision	Behavior after purchase	
		✓	✓		MD/CEO
	✓	✓	✓		Purchasing
		✓		✓	R&D
		✓		✓	Quality
	✓	✓	✓	✓	IT
✓		✓	✓	✓	Marketing/sales
✓	✓				Project

Fig. 20 Persons involved in the purchasing process
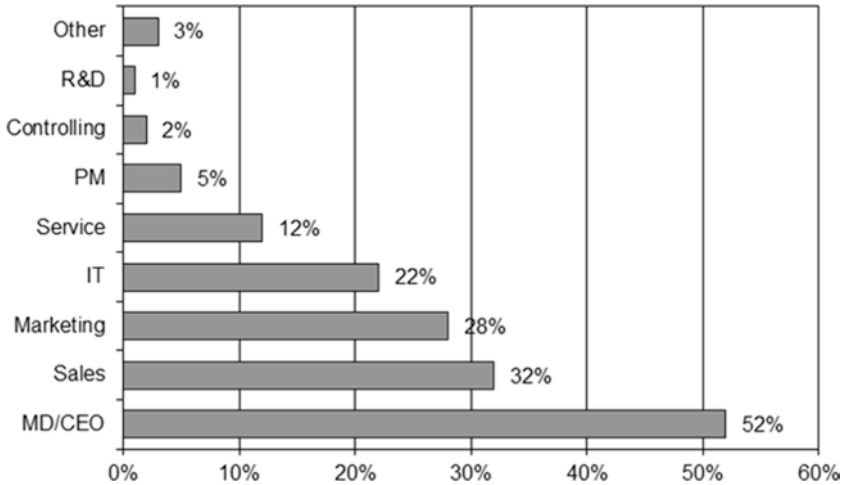
Fig. 21 Purchasing process initiative region/country A
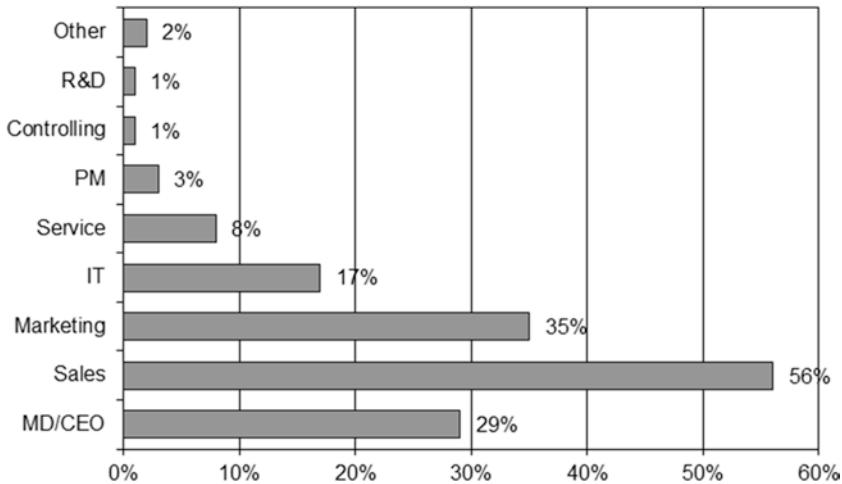
Fig. 22 Purchasing process initiative region/country B

involved in the purchasing decision on the customer side. You can also see that these people are involved with different emphases per buying process phase.

You can also see country-specific differences in the buying process and the people involved. In some regions/countries (region/country A), purchasing processes for a product are primarily initiated by the management (MD/CEO) (see Fig. 21), while in other regions/countries (region/country B) the buying/purchasing process initiators are to be found in marketing and sales (see Fig. 22).

The type of purchase process (new purchase, replacement purchase, repeat purchase, change of supplier, etc.) also influences the course of the purchase process and the people

Purchase phase	Initial/new purchase	Replacement/repeat purchase
Problem/need identification	MD/CEO/project	Purchasing
Determination of product requirements	Technology/PM/R&D/project	-
Supplier/product search	Technology/purchasing	-
Supplier/product evaluation	Technology/purchasing	Purchasing
Obtaining/evaluating offers	Purchasing	Purchasing
Purchasing decision	Technology/MD/CEO/purchasing/ quality/project	Purchasing
Determination of order modalities	Purchasing/PM/project	Purchasing
Implementation	Technology/quality/PM/project	-

Fig. 23 Different purchase process types

involved. If it is an initial purchase (new purchase), i.e. the product is being purchased for the first time, the purchasing process is very intensive and involves the entire buying center. In the case of a replacement or repeat purchase, purchase process phases are usually skipped and only a few members of the buying center will be involved. A special variant of the replacement or repeat purchase is a simultaneous change of supplier (see Fig. 23).

3.2 Analysis of the Purchase Process

Before you can carry out the analysis of the buying process with the customer, the buying process, the buying process type and the individual phases of the buying process must be determined. In doing so, take into account which phase of the life cycle your product and the product market are in. Depending on the phase in the life cycle, it may make sense for you to switch from a focus on the new purchase process to a replacement purchase process. This is especially true when moving from the growth phase of the product life cycle to the maturity/saturation phase. Market saturation shifts the focus from new demand to replacement demand. In analyzing the buying process, you determine at each stage,

- which situations relevant to the buying process occur at the customer,
- with which occasions the purchase process or the purchase process phase is associated,
- which activities relevant to the purchasing process are carried out by the customer,
- which problems and critical situations can occur and
- which behaviors the customer exhibits.

In the example of a purchase process (new purchase) shown in Fig. 24, in which the purchase decision for an IT system for special applications in planning offices is examined, the process starts with the problem/need identification phase.

Product market: Planning offices			Product: IT system (special application)		
Problem/need identification	**Information search**	**Evaluation of alternatives**	**Purchase decision**	**Behavior after purchase**	
• Customer requirement • Cost reduction project • New strategy (technology leader) • New employees • Restructuring project • Management change • Own suppliers • etc.					Behavior/activities/situations that arise/occur during the customer's buying process

Fig. 24 Activities of the customer in the problem/need identification phase

Product market: Planning offices			Product: IT system (special application)		
Problem/need identification	**Information search**	**Evaluation of alternatives**	**Purchase decision**	**Behavior after purchase**	
• Customer requirement • Cost reduction project • New strategy (technology leader) • New employees • Restructuring project • Management change • Own suppliers • etc.	• Suppliers • Internet • Fairs/exhibitions • Consultants • Trade journals • Competition • Customers • Industry associations • etc.				Behavior/activities/situations that arise/occur during the customer's buying process

Fig. 25 Activities of the customer in the information search phase

The question for you as a product manager is through which situations or occasions the customer can recognize that he needs such a product/system. In the concrete case, this could be a specific customer requirement, the result of a cost reduction program, etc.

If the need is clearly identified by the customer in this phase, the buying process moves to the next phase (see Fig. 25).

The information search phase is characterized by the customer consulting specific sources relevant to product information in order to gather information about products,
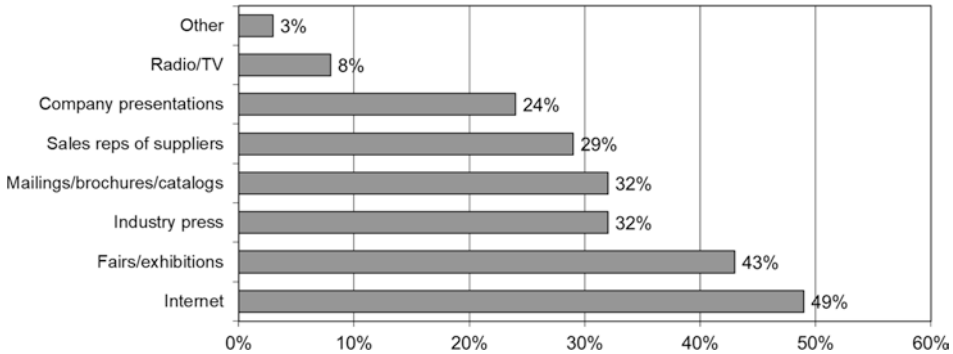
Fig. 26 Media used to prepare purchasing decisions

Product market: Planning offices			Product: IT system (special application)		
Problem/need identification	**Information search**	**Evaluation of alternatives**	**Purchase decision**	**Behavior after purchase**	
• Customer requirement • Cost reduction project • New strategy (technology leader) • New employees • Restructuring project • Management change • Own suppliers • etc.	• Suppliers • Internet • Fairs/exhibitions • Consultants • Trade journals • Competition • Customers • Industry associations • etc.	• Pre-selection according to image criteria • Inventory of own IT infrastructure • Estimate of total budget necessary • Clarification of financing • Creation of implementation concept • etc.			Behavior/activities/situations that arise/occur during the customer's buying process

Fig. 27 Activities of the customer in the phase of evaluation of alternatives

services, systems and suppliers. For example, he consults his existing hard- and software suppliers, does extensive internet research, visits specific trade fairs and exhibitions, contacts consultants who are active in this special field, etc.

Figure 26 shows the frequency of the media used to prepare purchasing decisions in the industrial sector.

You can clearly see that the internet has already beaten the trade fair as an information medium. Once sufficient information has been gathered, the buying process moves into the evaluation phase (see Fig. 27).

With the rough selection according to image criteria, the customer makes a preliminary decision. He limits the number of suppliers of relevant alternatives (in this case, three to four suppliers count as relevant alternatives). The customer will deal intensively with the selected suppliers (relevant set) in the next phase of the purchase process.

In addition to the activities directly related to the system purchase, the customer also carries out activities that do not directly belong to it. For example, an inventory is taken of the customer's own IT infrastructure in order to identify any necessary adjustments to the IT. An implementation concept is also created in order to be able to estimate the number of workstations, training requirements, time and project planning, implementation costs, etc.

The customer must also integrate the planned investment into its own internal budgeting and planning processes. In this phase, an initial budget framework will suffice, but timely planning is necessary so that the purchasing process is not delayed or even postponed to next year's budget planning. In the next phase, the purchasing decision is finally made (see Fig. 28).

System tests are carried out, specific references are checked in detail, contracts (service contracts, purchase contracts, consulting contracts ...) are drawn up. The purchase decision for the system and for the supplier is also made in this phase.

During the buying process analysis, pay attention to the critical transitions between the buying process phases. If certain targets in the buying process are not met/fulfilled for the customer, the decision-making process can be delayed or even aborted by the customer (see Fig. 29).

As a product manager, you should therefore think about which problems the customer is confronted with in the buying process. If, for example, the search for information is not very fruitful or too contradictory, it is quite possible that the buying process will be aborted. The following objectives must be fulfilled for the customer after each individual purchase process phase:

Product market: Planning offices			Product: IT system (special application)		
Problem/need identification	Information search	Evaluation of alternatives	Purchase decision	Behavior after purchase	
• Customer requirement • Cost reduction project • New strategy (technology leader) • New employees • Restructuring project • Management change • Own suppliers • etc.	• Suppliers • Internet • Fairs/exhibitions • Consultants • Trade journals • Competition • Customers • Industry associations • etc.	• Pre-selection according to image criteria • Inventory of own IT infrastructure • Estimate of total budget necessary • Clarification of financing • Creation of implementation concept • etc.	• System tests • Check references • Development of criteria list • Utility analysis • Draw up contracts • Presentation of offers • Negotiations • etc.		Behavior/activities/situations that arise/occur during the customer's buying process

Fig. 28 Activities of the customer in the purchase decision phase
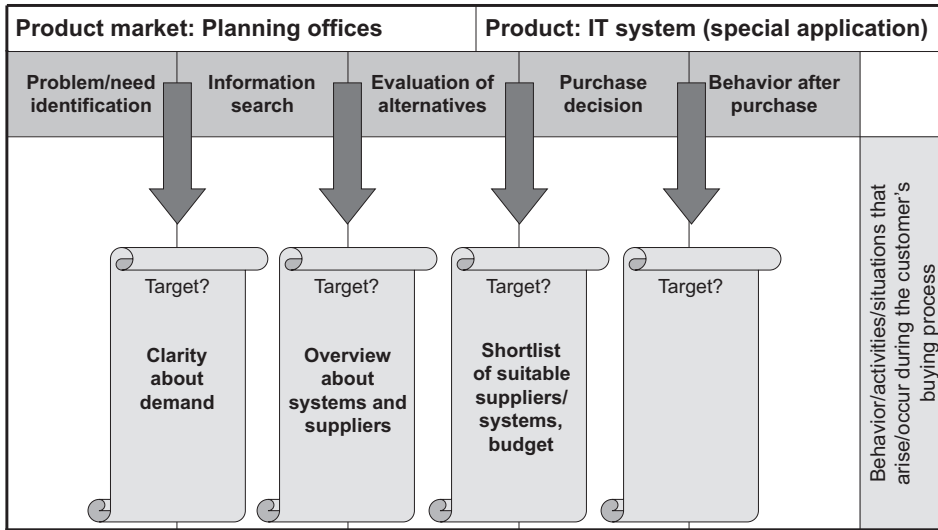
Fig. 29   Targets between the purchase process phases

- **Phase 1: Problem/need identification**
  After the problem/need identification phase, there must be clarity for the customer about the specific need. If there is any doubt, the purchase process is aborted or postponed to a later point in time for continuation.
- **Phase 2: Information search**
  A sufficiently comprehensive overview of the available systems and suppliers is the target after the information search phase. To achieve this target, the customer also invests a lot of resources in this phase (human resources, financial resources, etc.).
- **Phase 3: Evaluation of alternatives**
  The customer wants to have selected the alternatives that are relevant to him (relevant set) and to have prepared at least a rough budget (if necessary with financing alternatives). The rough budget must be brought into the budgeting processes of the company in order to achieve the necessary release. Again, you can see that other processes in the company need to be linked to buying processes. This can sometimes lead to high time pressure (in order to still get into the budgeting processes of the current year) or to large time delays.
- **Phase 4: Purchase decision**
  After the purchase decision, the customer wants to feel that they have made an informed decision. Even now, dissonances and uncertainties can occur that can still lead to the customer withdrawing from the purchase.

There are, of course, other stages after the purchase decision that you need to analyze using the same principles. Examples are:

- Implementation phase
- Test phase
- Application phase
- Evaluation phase
- etc.

3.3   Determining the Marketing Mix Specific to the Purchasing Process

When deriving the purchase process-specific marketing mix, you try to take over the activities performed by the customer in the purchase process as completely as possible (services of the supplier in the purchase process). Unfortunately, you cannot always achieve this ideal state completely. If you do not succeed in this takeover, you try to support these activities with the customer to a large extent or to influence them in a targeted manner (see Fig. 30).

The customer creates an implementation concept in the phase of evaluating the alternatives. You can take over this specific task as a supplier. As the product manager, you now have to ensure that an appropriate service concept is developed and that the resources are provided within the company or that external companies take over this service (see Fig. 31).

You must also decide whether this service is provided for a fee or free of charge. You can also set phase-specific priorities for the purchasing process-specific services (see Fig. 32).

Product market: Planning offices			Product: IT system (special application)		
Problem/need identification	Information search	Evaluation of alternatives	Purchase decision	Behavior after purchase	
• Customer requirement • Cost reduction project • New strategy (technology leader) • New employees • Restructuring project • Management change • Own suppliers • etc.	• Suppliers • Internet • Fairs/exhibitions • Consultants • Trade journals • Competition • Customers • Industry associations • etc.	• Pre-selection according to image criteria • Inventory of own IT infrastructure • Estimate of total budget necessary • Clarification of financing • Creation of implementation concept • etc. The execution of the task is done by the provider	• System tests • Check references • Development of criteria list • Utility analysis • Draw up contracts • Presentation of offers • Negotiations • etc.		Behavior/activities/situations that arise/occur during the customer's buying process

Fig. 30 Taking over the customer's activities in the purchasing process

Fig. 31 Options for perform-
ing services
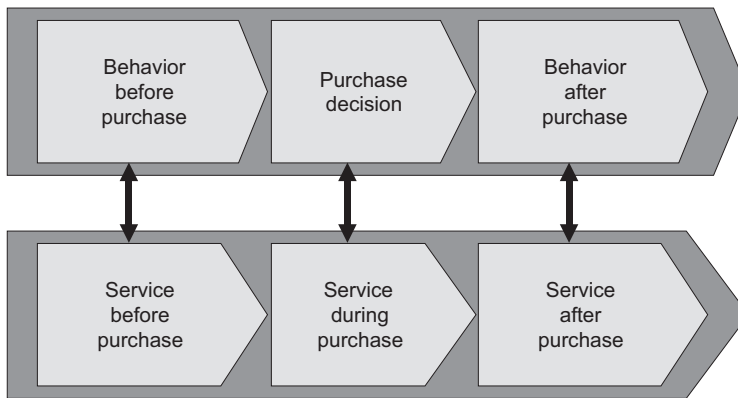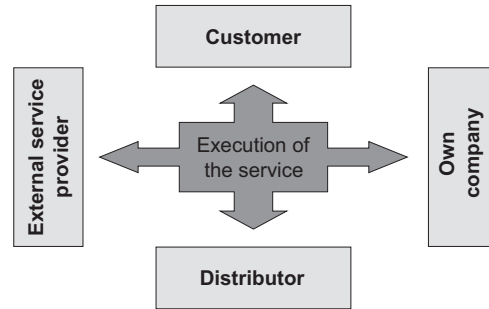
Fig. 32 Focal points in purchasing process-specific services

You can also make a specific service for the information search phase of the purchasing process. To do this, you should occupy and utilize the media that are used for the information search. In the information search phase, the customer contacts and asks the industry association, for example. You have to make sure that your own company and its product are known and present there. This can be done, for example, by ensuring that

- product catalogues are available,
- product advertising is placed in the association's newspaper,
- prepaid mailing packages are available,
- presentations are made at association events,
- an information stand is set up at association events,
- association staff is trained,
- PR activities run through the association,
- etc.

With so many possible activities, you naturally have to make a selection. At the same time, however, you should also ensure that you specifically differentiate yourself from the

competition when marketing the products. In this context, one also speaks of the UMP (Unique Marketing Position). While the USP (Unique Selling Proposition) refers to your product's performance, with the UMP you also try to differentiate yourself from the competition in the marketing of the product. The basic principle of the UMP is to be better than the competition in marketing the product. In practice, you will find further subdivisions. If you have a specific differentiation in product advertising, this is called a UAP (Unique Advertising Position), if your differentiation is in the distribution channels, this is called a UDP (Unique Distribution Position).

The first phase (problem/need identification) is becoming increasingly important in purchasing process management. You can certainly wait until the buying process starts at some point with the customer in order to then strike in the information phase. This approach, also known as passive marketing, is increasingly being replaced by a proactive and interactive approach to marketing products and services. In this approach, you try to trigger the buying process with the customer through the targeted use of marketing tools. Triggering the customer's buying process is certainly one of the supreme disciplines of product marketing.

A buying process can be triggered by one dominant factor or by the interaction of several factors at one point in time or over a certain period of time. In the example shown, the result of a cost reduction project is one of the factors triggering the buying process. Whether the customer carries out this project (cost reduction project) on his own or with an external consulting firm is irrelevant. The fact is that the result or at least a partial result of the project requires the implementation of this system. This triggers the purchasing process for this system. Of course, as a supplier, you can also take on this cost reduction analysis as a pre-purchase service in an attempt to start the buying process, if the results are in favor of it. The only hurdle for your company is to sell this pre-purchase service, which is usually free of charge for the customer.

> **Example: Triggering purchase processes**
> The product manager of a telecommunications company had the task of winning customers from the small and medium-sized enterprise (SME) segment for his product. This product market was already saturated. The purchase process type (replacement demand with change of supplier) was therefore clearly predetermined. The product manager first tried to attract customers with product advertising focused on price. However, this approach failed. Surveys revealed that customers knew there were savings to be made with the product, but the information was not concrete enough for them to make a decision. As part of a purchase process analysis, a measure was developed in the form of a brief analysis conducted by the sales representative that gave the customer clarity about the potential savings. This was sufficient to trigger a purchase process for this product in many cases.

In order for you to trigger a buying process, it is sometimes necessary to intervene not only with the direct customer, but also to involve the business system in which the customer operates.

Example: Purchase process management in the business system

A very successful system of an industrial company, which was previously used in the area of machinery and equipment, was now to be marketed in the area of commercial vehicle manufacturers (market development strategy). The responsible product manager prepared the market launch of this system for the commercial vehicle sector and supported the implementation. The first customer contacts of the sales representatives were sobering. The system was supposed to optimize the service costs of the commercial vehicles in operation – a benefit in which the commercial vehicle manufacturer is rather less interested.

The product manager now tried to find starting points in the customer environment (business system). Customers of the commercial vehicle manufacturers, leasing companies, repair shops, etc. provided clues. After the corresponding analysis, it was decided to start with the customers of the commercial vehicle manufacturers. The system was installed at some customers free of charge by the company. The test phase was very positive, and the workshops wanted to retrofit the entire fleet. For this purpose, the product management developed installation kits for the different types of commercial vehicles and made them available to the repair shops. This procedure was very successful and subsequently led to customers of commercial vehicle manufacturers ordering the system as additional equipment for new purchases from the commercial vehicle manufacturers.

The more you succeed in taking over the customer's activities, the more influence you can have on the customer's buying process and the more successful your product marketing will run. The prerequisite for this is the development of a marketing mix that is specific to the buying process.

4 On Course for Growth: Developing Innovative Products and Successfully Launching Them on the Market

The innovations considered are product innovations. Product innovations are newly developed (tangible or intangible) products and services that are aimed at satisfying specific and relevant customer needs. Product innovations must be clearly distinguished from process innovations. These refer to the material and informational processes necessary to produce the service. They serve to increase productivity and improve the cost position.

As a product manager, your task with product innovations is not only to bring your new product to life and launch it on the market, but also to find the right timing. The time from the central product idea to the market launch (time to market) is a relevant success criterion for you and must be controlled by appropriate process management (innovation and market launch process).

4.1 The Innovation Process

The innovation process is the phase in the product life cycle before the actual market launch of your product (see Fig. 33).

Revenue, contribution margin
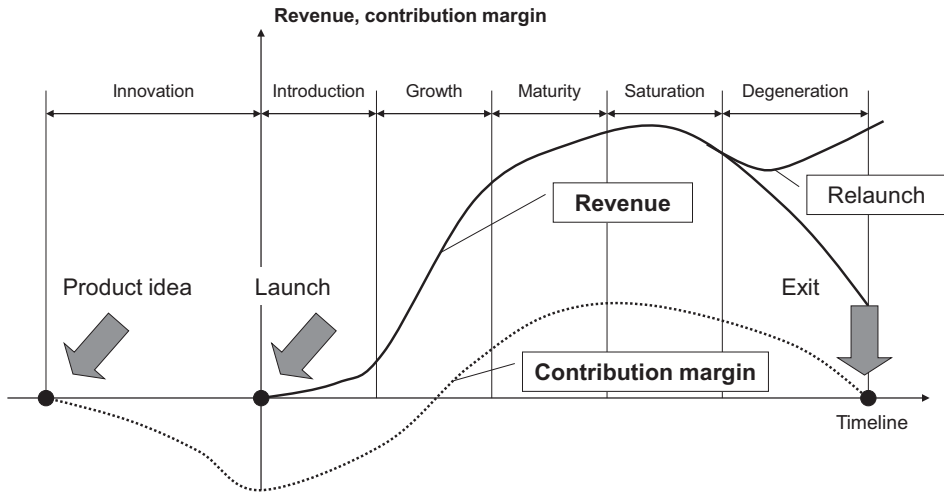
Fig. 33 Product innovation and product life cycle

Fig. 34 The innovation process and the process phases

1	Situation analysis/problem identification
2	Idea collection/idea generation
3	Systematic idea acquisition/storage
4	Idea evaluation/selection and decision
5	Market introduction concept and plan
6	Market launch in the product market
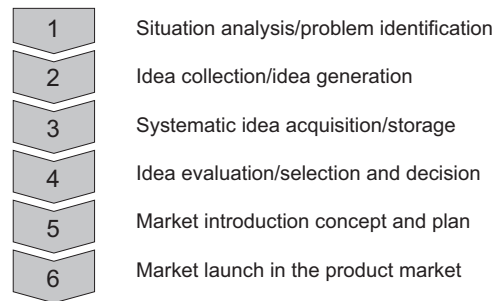
The product innovation process has the task of converting a product idea into a marketable product in a timely manner with the necessary resources. It must consistently ensure all appropriate phases from the initiation of the product innovation to the successful market launch.

In view of the relatively high level of uncertainty about the market and competitive situation (especially in the case of genuine innovations), it must have sufficient flexibility to allow appropriate reactions due to changes that occur. Furthermore, its structured handling requires a clear regulation of process tasks and responsibilities. This is important for you insofar as in practice, in the case of product innovations, other processes usually run parallel to the innovation process (simultaneous engineering) (e.g. technical development processes), which also require coordination by you.

There is a wide range of innovation processes used in practice. The individual innovation processes differ in that they place greater emphasis on different aspects of the process (see Fig. 34).
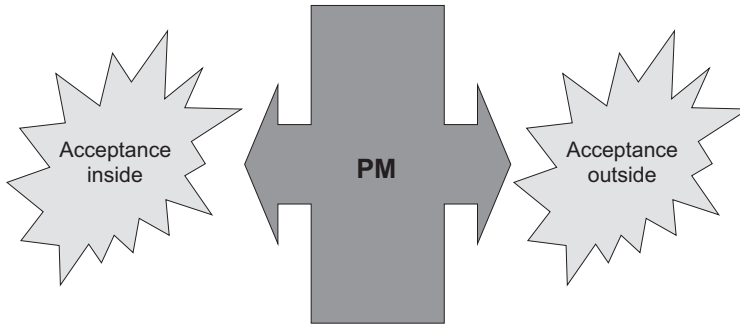
Fig. 35 Internal and external communication and marketing

You must also accompany the product innovation process and the product launch internally with communication measures. Many product managers rely heavily on external communication during the product launch. However, these external communication measures are directed at the product market and have an effect on the target market. Internal communication measures are aimed at your own organization (managers, employees, functional areas, subsidiaries, etc.). In this way, you ensure that acceptance of your product is not only established on the market, but also within the company (see Fig. 35).

Above all, internal sales to your own sales force play a major role in the success of your product launch.

Example: Creating internal acceptance for the new product
The specific situation in a company (struggle of product managers for limited sales resources) caused a product manager to expand internal communication very strongly during an important product launch. The internal communication measures used were:

- **Product logbook**: The product logbook was a short communication (one page) to about 250 selected key employees and managers of the company. It was created once a week and emailed to the targeted individuals. This ensured that these individuals had up-to-date information about the new product and the product innovation process on a weekly basis.
- **Product newsletter:** As soon as important phases in the product innovation process (e.g. market research phase, design phase, strategy phase) were completed, an eight-page newsletter was sent to the 250 target persons. This newsletter contained a short summary of the procedure in the phase and presented the result.
- **Homepage on the intranet:** A dedicated homepage for the product innovation was created on the company's internal network. A product logbook library was also created there and summaries of the product newsletters and logbook were integrated. All employees and managers of the company had access to this homepage.
- **Poster series:** Posters about the product were sent to key people and departments at regular intervals. The purpose of the poster series was to increase the product's visibility and awareness.

- **Information workshops:** Information workshops and information fairs were held at larger company locations. The various departments involved in the product innovation (market research, development, design, advertising, etc.) answered questions from interested visitors at these events.
- **Launch meeting:** A launch meeting was held in Europe for the international sales offices shortly before the product launch. The aim was to communicate the final technical content of the product, to hand over the selling tools and to get the sales team excited about the new product. The combination of technical content and emotional components is very important at such events. Technical knowledge and emotional enthusiasm are essential success factors for sales, especially with product launches.

4.2   Situation Analysis/Problem Identification

You can identify different reasons for the necessity of product innovations in companies:

- Shortening of product life cycles
- Obsolescence of the product/article structure
- New product-relevant technologies, methods and processes
- Change in customer needs/requirements
- Competitive situation and competitive pressure
- Corporate strategy and strategic gap planning
- Changes in the environment (trends and developments)

Strategic gap planning in particular has recently been gaining in importance again. Growth targets are set top-down in this case, and any revenue gaps that arise must be closed with new products (see Fig. 36).

In strategic gap planning, the strategic gap is defined from the perspective of corporate planning. The previous revenue trend (1) and the revenue planning (5) form the basis for this. The strategic gap is created by comparing the planned revenue with the expected revenue trend of the existing products according to the life cycle. You can now close the strategic gap with different measures:
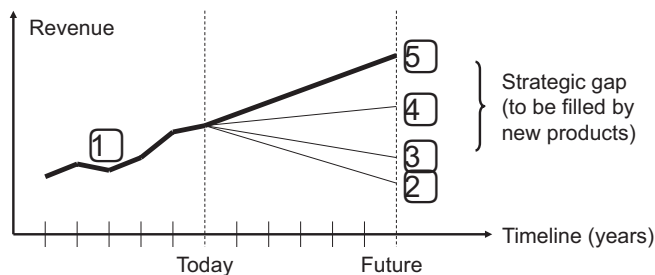
Fig. 36 Strategic gap planning
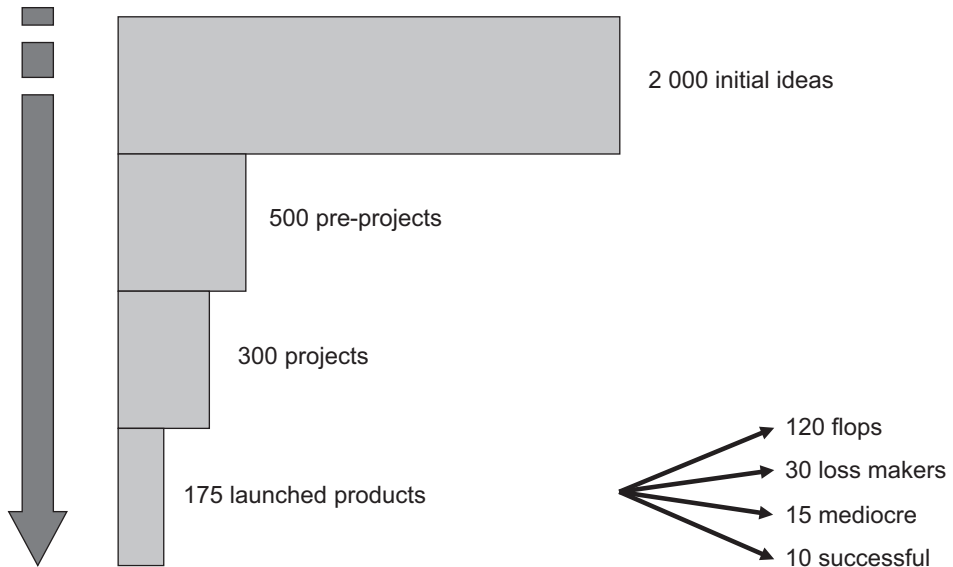
Fig. 37 Selection of product ideas

- By additional revenue that can be achieved with existing products through additional marketing campaigns (2–3).
- By additional revenue which can be generated by new products but which are already ready for market launch (3–4).
- By revenue, which must be filled by new products that are currently unknown (4–5).

4.3 Idea Collection/Generation

Product innovations are created through new ideas. In general, it can be said that your probability of success in innovation processes increases with the number of ideas generated and collected. This becomes clear when you consider the sharp reduction of ideas in the various innovation phases (see Fig. 37).

During the innovation process, not only are ideas greatly reduced in the various evaluation and selection steps, but the flop rate during product introduction is also very high.

When collecting and generating ideas, you can draw on internal and external sources of information and ideas.

Sources of information and ideas external to the company are:

- Publications (industry associations, universities, journals ...)
- Supplier information
- Customer information (market research methods)

Own product	Customer application	Degree of suitability					Degree of improvement of customer application through our product					Competitive comparison to our product				
		--	-	0	+	++	--	-	0	+	++	--	-	0	+	++
A	0815			x						x			x			
B	4711				x						x			x		
C	1007		x					x							x	

Fig. 38 Comparison of competitors by means of suitability analysis

- Patent searches and patent analysis
- Competitor analysis (product analysis, suitability analysis ...)
- etc.

In suitability analysis as a possible source of information and ideas, consider not only the direct comparison to the competitor's products, but also the degree of suitability of your product for the customer's application and how your product improves the performance of the customer's products (see Fig. 38).

Internal sources of information and ideas are:

- Managers and employees (proposal system, field reports ...)
- Reports from the customer service and complaints departments
- Creativity workshops and problem solving workshops
- Internal company documents (complaint statistics, offer analysis ...)
- etc.

Detailed analysis of inquiries and offers to identify the reasons for refusing to submit an offer in the first place and also the reasons for unsuccessful offers form an additional information basis for you as a product manager (see Fig. 39).

Although creativity techniques perform relatively poorly in innovation studies (less than 5% of all ideas are generated through the use of creativity methods), you should definitely use them. The reason for the poor performance is usually due to the incorrect application of the methods. The most important creativity methods and techniques include brainstorming, brainwriting, morphology and synectics.

4.4   Systematic Idea Acquisition/Storage

From the phase of idea collection and idea generation, you usually have a large number of new ideas and problem solutions that you need to systematically record and store in a meaningful way. This not only benefits the existing innovation project, but you can also

Reasons for refusal to submit an offer	Number of events		Quantity		Value	
	absolute	%	kg	%	€	%
Price/Cost						
Delivery time						
Small quantity						
Technical risk						
Economic risk						
Other reasons						
Total refusals						
Total requests						

Reasons for unsuccessful offers	Number of events		Quantity		Value	
	absolute	%	kg	%	€	%
Price/Cost						
Delivery time						
Conditions						
Service						
Quality						
Offer too late						
Other reasons						
Total unsuccessful offers						
Total offers						

Fig. 39 Obtaining information through offer analysis

access this information in a later innovation project. Therefore, build an innovation data-base. To do this, you need to set up a standardized structure for the data entry screens. The higher the degree of standardization and structuring already in this phase, the easier and, above all, more complete you will be able to conduct idea searches later on.

Example: Structuring an idea database

The product managers of an automotive supplier company were faced with the task of set-ting up an innovation and idea database for product management. To gather information and ideas, the company used not only the classic creativity methods at regular creativity work-shops, but also

- a sophisticated internal proposal system,
- regular one-day customer workshops (so-called product clinics),
- reverse engineering projects of competitor's products (disassembly of competitor's products),
- patent searches at the patent offices and
- a comprehensive document analysis of specified sources of information.

The resulting flood of new ideas had to be processed and stored in an orderly and systematic manner. The database structure developed by the product managers was as follows:

- Name of the idea
- Submitting person/department
- Date of submission of idea
- Description of the idea
- Operating principle and technical function
- Field of application and product benefits
- Effort estimation and realization time
- Relevant regulations, laws, standards
- Restrictions and framework conditions
- Interdependencies with other products, components ...

4.5   Idea Evaluation/Selection and Decision

You must now evaluate the individual product and improvement ideas. You can use different criteria for the evaluation:

- Market-related criteria (market potential, market volume, market growth ...)
- Economic criteria (revenue, contribution margin, investments ...)
- Time criteria (market launch, development time, life cycle ...)
- Technical criteria (quality, range of functions, integration ...)
- Customer-related criteria (product benefits, competitive comparison ...)
- Company-related criteria (strategy, synergies, cross-selling ...)

The individual product ideas and product improvement ideas can usually be evaluated using these criteria by applying the utility analysis (see Fig. 40).

First, identify and weight (W) the relevant evaluation criteria, because not all evaluation criteria are equally important for the decision. Weighting scales with five points (5 ...

Evaluation criteria	W	Alternative product ideas					
		Alternative 1		Alternative 2		Alternative 3	
		E	W x E	E	W x E	E	W x E
• Production costs	4	4	16	8	32	2	8
• Customer benefit	4	8	32	2	8	8	32
• Investment	1	6	6	10	10	6	6
• Revenue potential	1	8	8	8	8	6	6
• Contribution margin	4	10	40	4	16	8	32
• Competitive intensity	3	10	30	8	24	10	30
• Know-how	3	10	30	4	12	10	30
• etc.							
Overall rating			162		110		144

Fig. 40   Evaluation of innovation ideas

very important to 1 ... not very important) or with ten points (10 ... very important to 1 ... not very important) are often used. Then you evaluate (E) the individual innovation ideas. In doing so, you assess the extent to which the individual ideas meet the evaluation criteria. Here, too, rating scales with five points (5 ... very good to 1 ... very poor) or with ten points (10 ... very good to 1 ... very poor) are usually used. By multiplying the weighting and evaluation (W × E) and forming the column sum, you calculate the overall rating.

The evaluation criteria and the weighting are compiled by you individually for each product and include both product-related and company-related criteria.

Example: Evaluation grid for the evaluation of alternative product ideas
The product managers of a telecommunications company developed a catalogue of criteria for the evaluation of product ideas, which was to be used company-wide for all new products. The following questions were asked when evaluating product ideas:

- Does the product idea fit the core competence of the company?
- Does it support and drive technology leadership?
- Does the product idea fit to our core market?
- Does it cover additional functions at the customer?
- Does the product idea have corresponding sales and profit potential?
- Does this product idea have reference potential?
- Does the product idea have a "re-use" capability?
- Is the product feasible (technical feasibility)?
- Is it possible to bring the product to market (market feasibility)?
- Is there growth potential for the company?
- Is the product a useful addition to the product portfolio?

The individual questions were integrated into a utility analysis and the product ideas were evaluated in the innovation management team (see Fig. 41).

Evaluation criteria	W	Alternative product ideas					
		Alternative 1		Alternative 2		Alternative 3	
		E	W x E	E	W x E	E	W x E
• Core competence	8	2	16	6	48	9	72
• Technology leadership	6	7	42	6	36	4	24
• Core market	8	8	64	8	64	7	56
• New functions	10	6	60	10	100	10	100
• Profit/sales potential	6	4	24	5	30	8	48
• Reference potential	8	7	56	6	48	4	32
• "Re-use" capability	7	5	35	6	42	3	21
• Feasibility	10	8	80	6	60	9	90
• Market launch	8	6	48	8	64	3	24
• Growth potential	6	9	54	8	48	6	36
• Product portfolio	4	5	20	10	40	5	20
Overall rating			**499**		**580**		**523**

Fig. 41 Evaluation of the product ideas by means of utility analysis
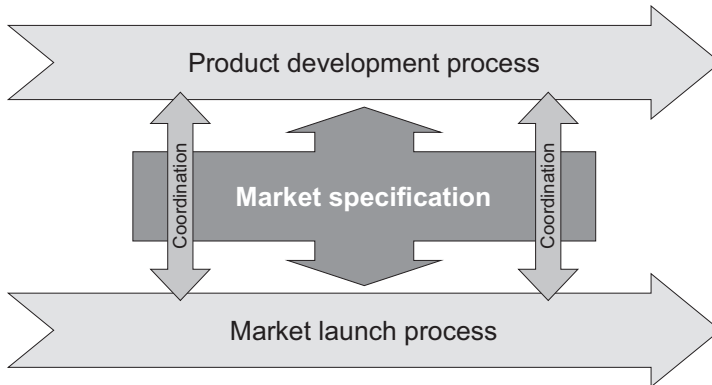
Fig. 42 Parallel processes for product development and market launch

4.6   Market Launch Concept and Plan

The actual (technical) product development and the creation of a market launch concept and plan for the product are usually parallel processes (see Fig. 42).

The starting point for both processes is the market specification to be created by the product manager. The specifications contain both the customer requirements necessary for technical product development and the content and framework conditions necessary for the development of a market launch concept/plan.

You will be responsible for coordinating both processes in product management. The technically oriented product development process is driven forward in the research and development (R&D) department of your company. For this purpose, a product development project plan is usually set up. Project management for the product development process of this project lies in R&D. As the product manager, you are present at important project meetings in the product development project (for example, milestone meetings, project control meetings).

The creation of a market launch concept and the market launch plan is your responsibility in product management (usually in the product management team). You can develop the market launch concept and market launch plan in one piece or separately. These documents cover the period from the time of market launch to the successful assertion of your product in the market. This can be the point in time when the break-even point is reached or the point in time when stable revenue growth (growth phase of the product life cycle) is achieved.

With the product launch on the product market, the product life cycle of your product on the market begins. From this point on, potential customers are confronted with your new product for the first time. You must prepare this initial contact carefully.

Example: Market launch concept and market launch plan

A company from the industrial sector has defined the following contents for the creation of a market launch concept and the market launch plan. This structure is used by all product managers for designing the market launch of new products.

Outline of the market launch (go-to-market) concept:

1. Motivation/starting point

   – Justification for engagement

2. Markets/customers

   – Enumeration/listing of markets
   – Market potential and growth
   – Customer structures

3. Product benefit/positioning

   – Technology
   – Price
   – Support

4. Competitive situation

   – List of competitors and market shares
   – Strengths/weaknesses
   – Opportunities/threats

5. Implementation partner

   – Sales/OEM partner (e.g. lead customer)
   – Development partner
   – Funding/financing partner

6. Product goals

   – Production costs
   – Scope of services
   – Release policy

7. Development

   – Brief technical description
   – Resources/tools/personnel
   – General conditions/pre-requisites

8. Plant engineering/production

   – Unit numbers and target prices
   – Test method
   – General conditions/pre-requisites

9. Marketing/sales

   – Schedule, lead times, date of market launch
   – Distribution channels
   – Marketing tools

   – Life cycle

   – Support

10. Internal environment

   – Product portfolio
   – Resource conflicts

11. Financing/efficiency

   – Development costs/budget
   – Marketing/sales costs
   – Opportunity costs
   – Revenue /contribution margin scenario
   – Break-even point scenario
   – Return on investment (ROI)

12. Risk analysis

   – Technical risk
   – Economic risk
   – Market risk
   – Entrepreneurial risk

13. Source reference:

   – Internal sources
   – External sources

Outline of the market launch (go-to-market) plan:

1. Define start-up customers/markets

   – Listing/prioritization of customers
   – Listing/prioritization of markets/industries
   – Justification and evaluation

2. Determine sales channels

   – Overview of distribution channels
   – Evaluation of distribution channels

3. Product modeling

   – Definition of USP
   – Competitive arguments
   – Base/options/assortment
   – Release

4. Prices

   – Determination of prices, terms, discounts, conditions
   – Determination of delivery times, delivery terms and conditions

5. Communication

   – Internally in own company (sales training, motivation ...)
   – Externally to customers/partners (preliminary information, presentation ...)

6. Product positioning/competition

   – Strengths/weaknesses
   – Opportunities/threats

7. Advertising/sales promotion

   – Media selection, media plan
   – Advertising message

8. Budget/scheduling

   – Milestone planning
   – Implementation budget

5 Maintaining an Overview: Using Roadmaps as an Important Communication and Control Tool

5.1 Purpose of a Product Roadmap

As a product manager, you often find yourself in the situation of developing a rough picture of the future of your product and communicating this both within your own company and externally (to different market participants). A popular approach in product management is to show the way forward by developing roadmaps. Roadmaps are simple and excellent communication tools that also allow you to link the product strategy to other strategies and plans and show them in context.

Roadmaps are particularly useful if the product or product group is subject to long-term further development and the product change has consequences both for the company itself and for external target groups (e.g. customers).

When creating a roadmap, you do not go into detail, of course, but simply outline the focal points with which you want to generate success as a product manager in the medium and long term. A roadmap shows the different paths (e.g. stages in the further development of the product, phases in technology trends, etc.). Ideally, a roadmap should fit on one page.

To be successful in roadmapping, you need to ensure that the roadmap also includes the appropriate group intelligence. Pooling the know-how and experience of all stakeholders (e.g. R&D, marketing, production, sales, etc.) is a key success factor when creating the roadmap.

When roadmapping, turn those affected into participants!

Figure 43 shows the basic scheme of a simple product roadmap for a new product to be developed in the field of measurement technology. The launch date and the options available in the future in the basic and expert product are shown simply and clearly.

5.2 Roadmap Contents

When setting up a roadmap, you should make sure that the roadmap does not immediately replace all project plans. A roadmap is not an alternative to individual project plans, but a visual overall coordination and communication aid on a much higher level. A roadmap is, so to speak, superordinate to the project plan.
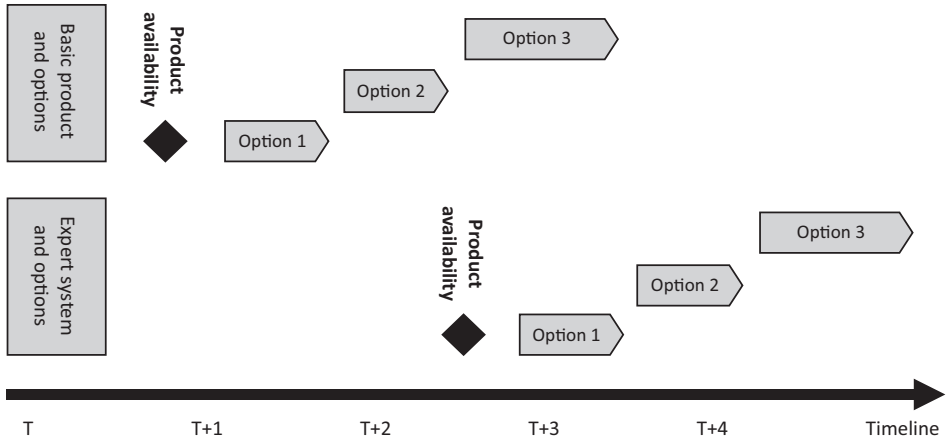
Fig. 43 Basic scheme of a development/product roadmap (basic scheme)

Fig. 44 Distinction between roadmap and project planning
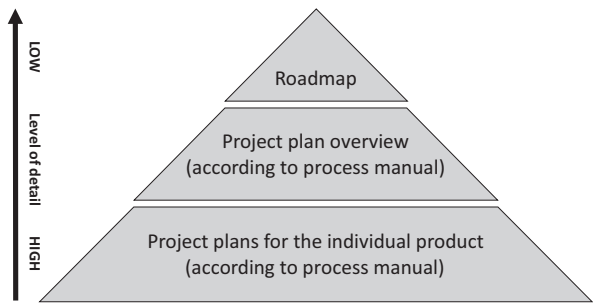
The roadmap is not a substitute for the project plan!

Figure 44 shows the differences and dependencies between the roadmap and the project planning hierarchically.

Project plan overviews are mostly defined in the process manuals of the companies. The level of detail is higher than in the roadmap. The individual phases are shown and described in detail in the project plan overview. The project plan overview forms the basis for developing individual plans for the single product.

Figure 45 shows the scheme and contents of the project plan overview from the process manual of a pump manufacturer in the industrial sector.

Project plans go into even more detail. Detailed flowcharts and project management tools are used in project planning. So stay at the highest possible level of abstraction and detail when developing a roadmap!

The most common contents of a roadmap are:
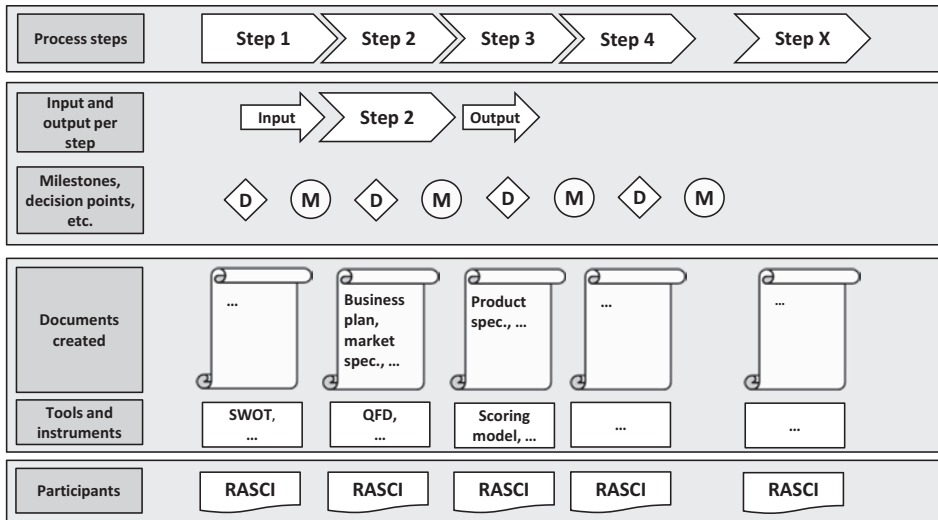
Fig. 45 Schematic and contents of a project plan overview

- Stages, phases or steps in the process or procedure.
- Critical milestones in the process (e.g. product launch date).
- Short description of the individual elements.
- Time sequence, time frame and points in time (usually shown on a timeline).

In addition, you can also include the following elements in your roadmap:

- Dependencies between individual elements (e.g. in the case of simultaneous introduction of new products).
- Alternative scenarios (e.g. in process or procedure).
- Additional detailed descriptions or comments (e.g. indication of additional benefits for product relaunches).

Figure 46 shows an example of additional detailed descriptions and comments in a product roadmap from the computer games industry. In this roadmap the product manager presents the features and benefits of the individual product updates in chronological order.

5.3   Roadmap Types

There are different types of roadmaps. The best known and most widely used are the product roadmap and the technology roadmap. Each roadmap type pursues its own communication goal and is also usually aimed at different target groups.

The main roadmap types are:
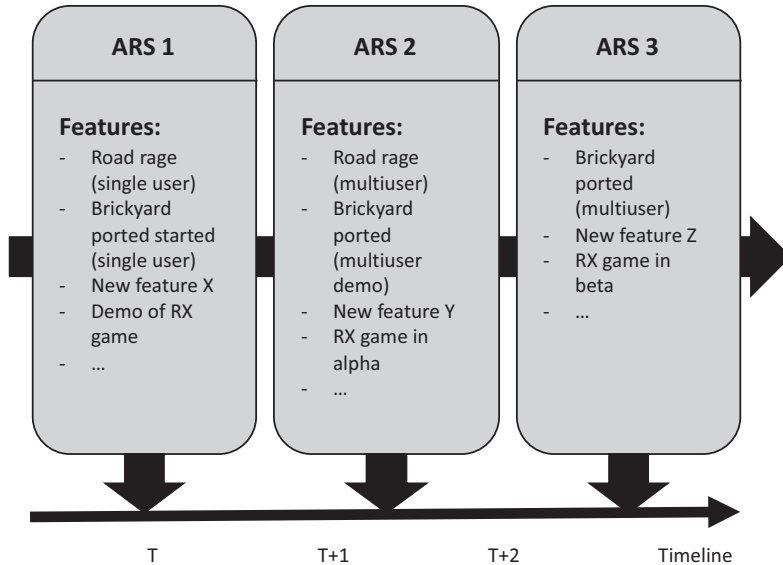
Fig. 46 Example roadmap with detailed description (modified example)

- Product roadmap
- Technology Roadmap
- Market/strategy roadmap
- Development roadmap
- Vision/mission Roadmap

You can also combine different roadmap types to get a comprehensive overall picture. This is called a hybrid roadmap.

5.3.1   Product Roadmap

Product roadmaps are mainly used to show when product releases will be available and which new features/functions or additional product benefits will be added (see also the example in Fig. 46). If you use the product roadmap to manage development priorities in your own company, for example, or if you use it as a communication basis for management and functional departments to obtain the necessary resources, then you are talking about an internal product roadmap. External roadmaps are used for communication with customers and other external target groups. External roadmaps should be based on the internal roadmap, but should omit information and data that is not of interest to the external target groups or is not intended for the public. Most of the time, you will also be a bit more generous in terms of timing and dates. The external product roadmap (sometimes also called the PR version of the roadmap because of its publicity effect) is thus part of the sales manual or other sales documents.
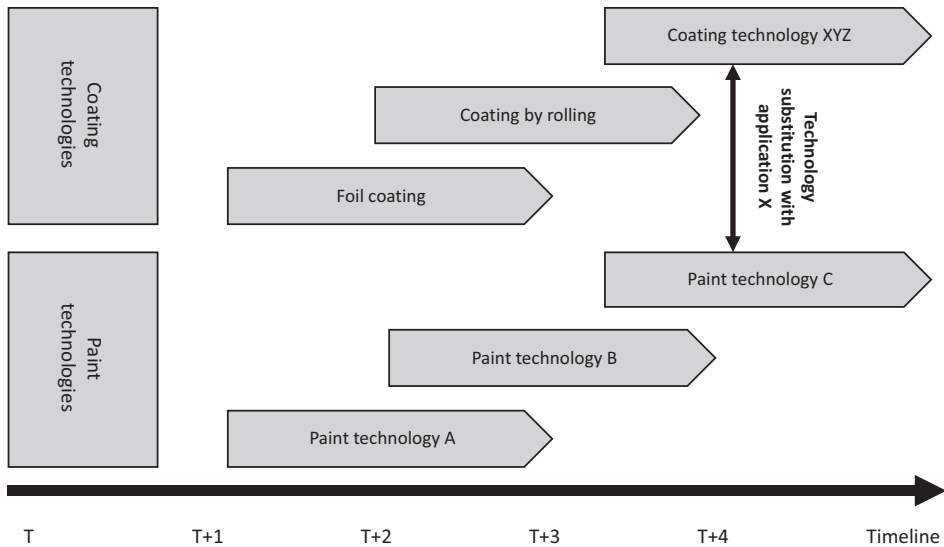
Fig. 47 Technology roadmap with technology substitution (modified example)

5.3.2 Technology Roadmap

This type of roadmap shows which technological trends and developments exist in the sector or industry and in which time frames these topics are likely to manifest themselves and thus gain relevance for the product market. As a product manager, you can easily contrast your products and product releases to show how you are addressing the time-to-market issue. You can also make technology leaps or possible technology substitutions more visible with the technology roadmap.

Figure 47 shows an example of a technology roadmap with technology substitution from the paint and coating industry.

5.3.3 Market/Strategy Roadmap

You use a market/strategy roadmap if you want to show in which markets you want to enter with your product and when. With this roadmap, you can clearly present the medium and long-term market strategy in the product market and thus also optimally support sales management. Common contents of this roadmap type are:

- Countries, regions (or other geographical breakdowns)
- Market segments, industries, sectors
- Customer types (e.g. A, B or C customers)
- Adopter groups
- Applications, areas of use
- Communication focus (e.g. image, product and awareness advertising)
- Distribution channels

The market/strategy roadmap is also used by product managers to visualize and communicate the communication measures during the launch phase of a new product on the market.

> **Example: External use of the market/strategy roadmap in the consumer goods sector**
> In the case of the new launch of a product in the consumer goods sector, the trade was convinced primarily by the planned communication measures in the introduction phase and by the expected pull effect. For this purpose, the product manager created a market/strategy roadmap and convinced the sales representatives to present this together with the product as a focus during customer meetings. Initially, sales was somewhat skeptical of this approach. The product manager achieved demonstration of effectiveness by accompanying sales to four selected customers and delivering the roadmap presentation at the customer meeting. Together with the presentation of the product benefits and the roadmap, the strong focus on prices and conditions at the retail level could be clearly and effectively put into perspective and a strong negotiating position could be built up with the customer.

5.3.4   Development Roadmap

Product development roadmaps are used in both product management and development (R&D). They are used in the context of development project management specifically for projects that cover a somewhat longer time horizon and have a high degree of complexity and detail. The roadmap is used to divide the project into coarser milestones and thus ensure an overall view.

5.3.5   Vision/Mission Roadmap

Vision/mission roadmaps show the big picture of general market and industry trends. The product manager picks up on such trends and developments and shows how his product fits into this picture and what advantages result from it.

Common trends and developments used in vision/mission roadmaps are:

- Economic trends
- Political and legal trends
- Demographic trends
- Social and cultural trends

> **Example: Use of a vision/mission roadmap in the consumer goods sector**
> A product manager was able to get his business unit manager excited about his "home sauna" product group again by compiling specific market trends and presenting the probability of occurrence in a roadmap. Above all, the trend towards cocooning played a dominant role in this product market. Trend researchers describe cocooning as the tendency to increasingly withdraw from the public sphere into private domestic life. Cocooning describes the return to one's own four walls and the feeling of being at home. Translated to the home sauna product, this means that sauna users no longer use the public sauna or the sauna club, but prefer the home sauna in their own house. The established sales channels (e.g. DIY and installers) could also be motivated with this approach to generate more attention for this product group again.

5.4   Target Groups for Roadmaps (Internal/External Roadmaps)

The roadmaps you use are part of your internal and external communication. Different target groups expect specific information. For example, management expects you to provide information on the future development of the product portfolio in order to be able to assess the development of the business, the resource requirements and the necessary need for action in perspective. Roadmaps are therefore not only an important communication tool, but also a component of strategic planning. This also defines the time horizon of a roadmap of up to five years. If management confirms the product manager's roadmap, there is usually good backing for implementation. The functional departments (e.g. marketing, R&D, technology management, sales, etc.) also receive important information from the roadmaps for their own resource and implementation planning.

Target groups for roadmaps can also be external to the company. Examples of external target groups are:

- Existing/new customers
- Trade/trade partners (distributors, retailer, VAR …)
- System manufacturers, integrators
- Consultants/industry Experts
- Manufacturing industries
- etc.

Roadmaps, for example, allow customers to assess the future and investment security of your product. You can use them to show the prospects of the product and support long-term commitment. From your roadmap, however, the customer can also estimate what he cannot expect at a certain point in time.

> Roadmaps give the customer confidence and security!

5.5   Legally Binding Nature of Roadmaps

With the roadmap, the product manager communicates a statement of intent to both internal and external audiences.

> Roadmaps create not only transparency, but also commitment!

The legally binding nature of the publication of roadmaps to external target groups must be viewed critically. Although publication is an important part of market and customer communication, it also gives rise to expectations in terms of fulfilment.

As a product manager, you have two options to mitigate these expectations:

- By the accuracy of information in the roadmap.
- By marking the non-binding nature of a roadmap.

You have scope for commitment when specifying dates. In many cases, half-yearly or quarterly information is quite sufficient. In the B2B sector, however, you have far fewer options here than in the B2C sector. B2B customers are also far more demanding when it comes to the accuracy of information regarding the range of functions, product benefits, areas of application, compatibility, etc. If individual customers expect more information with a higher level of detail, you can also require them to sign an NDA (Non Disclosure Agreement).

However, they can also clearly ensure the non-binding nature of roadmaps through appropriate annotations in the roadmap document.

There are, of course, product managers who do not publish roadmaps. Frequently cited reasons for not publishing roadmaps are:

- Competition should not be alarmed.
- The transfer of know-how should be avoided.
- An element of surprise is to be built up in the market.
- Sales representatives should not sell products too early (e.g. in case of customer inquiries).
- No internal or external pressure should be built up.
- Uncertainty regarding the binding nature of the roadmap content.

5.6   Hybrid Roadmaps

The trend in roadmapping is clearly towards hybrid roadmaps. To create a hybrid road-map, you simply combine different types of roadmaps. For example, you can combine a product roadmap with a market and technology roadmap. Possible dependencies and con-nections between products, technologies and markets can be clearly displayed here. In addition, the individual target groups receive a general overview of all relevant topics. This also supports the task of cross-functional coordination of the product managers.

Figure 48 shows the basic scheme of a hybrid roadmap from a measurement technology company.

6   Agile Product Management: Product Development and Further Application Possibilities

Agile product management is closely related to the Scrum methodology and its use in the development of software products. The Scrum method has become widespread due to its simplicity, rapid applicability and ease of learning and is an essential component of agile
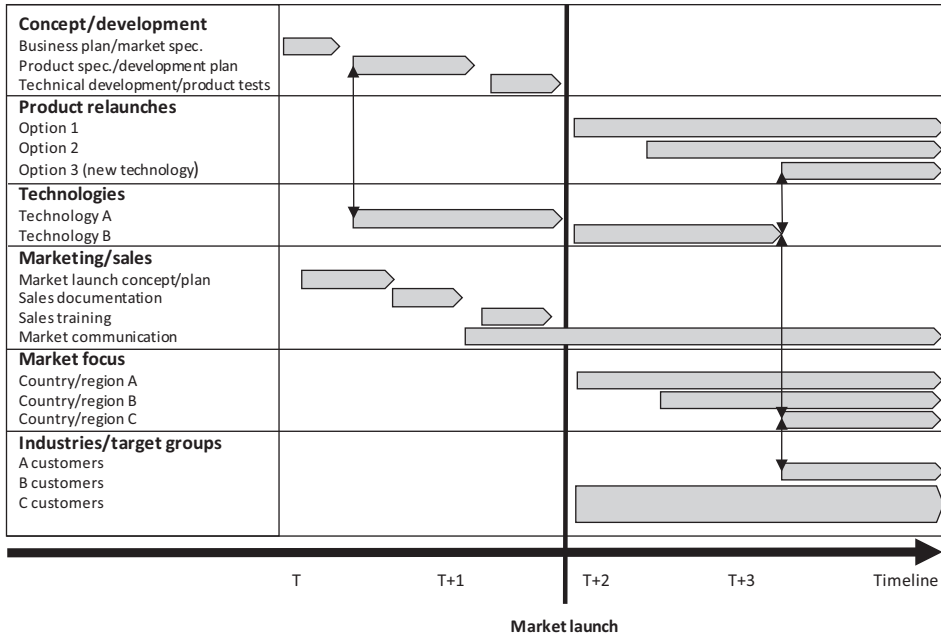
Fig. 48 Basic diagram of a hybrid roadmap (modified example)

product management. However, Scrum is not only used in the development of software products, but is also increasingly used for product development in other industries (e.g. hardware development, development of service products). The Scrum methodology can also be used in product management for the development of market launch concepts/plans.

Common applications of the Scrum methodology in agile product management are:

- New product developments (hardware, services, software)
- Customer-specific and general product adjustments (change requests)
- Customized new product development with a lead customer
- Product relaunches and product face-lifts
- Development of market launch concepts and plans
- Development of product strategies and business plans for existing and new products
- Product innovation with a focus on design thinking

In order to establish agile product management, you as a product manager should not use the Scrum methodology exclusively for product development, but rather expand the range of applications. The prerequisite for this is knowledge of the most important basic principles. This will enable you to better assess the possible uses of Scrum, take into account special features and experiences from your own projects, and develop an individual and topic-specific Scrum process.

6.1   Reasons for the Use of Scrum

In classic product innovation and product development processes, the process phases are run through relatively strictly. Despite the necessary flexibility in application and implementation, rigidly adhered to specifications in project management can lead to

- delays in product launch,
- lack of product quality,
- overruns of cost targets,
- products that do not optimally meet market requirements and
- products that do not show any significant differentiation from the competition.

In order to eliminate these weaknesses, companies are trying to design their product innovation processes and product development processes more in line with Scrum principles.

6.2   The Basic Idea of Scrum

The basic idea of Scrum is an incremental and iterative approach in smaller steps (sprints), similar to a trial and error approach. A self-organizing team (Scrum team) as well as regular and early involvement of the relevant market participants (customers/users) and other stakeholders involved in the process (inside and outside the company) are important principles of success when using the method. For example, even extensive market and competitor analysis at the beginning are replaced by less research at the beginning and continuous market and customer feedback during the Scrum process. Project management tasks are also no longer carried out by a classic project manager, but are distributed among the Scrum team.

6.3   Participants in the Scrum Process

The Scrum team consists of the following people and groups of people (see Fig. 49):

- Scrum master (=expert in the Scrum methodology)
- Product owner (= product manager)
- Team (= product development team, market launch team ...)

The Scrum master is a method specialist. He ensures that the Scrum process runs optimally and that the Scrum methodology is used correctly. He supports you, the product manager in the role of product owner, as well as the team and ensures progress, productivity and motivation.
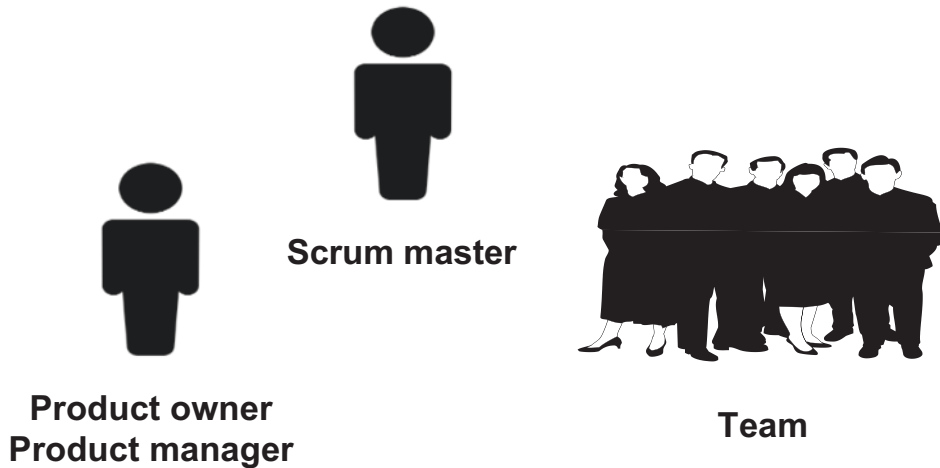
Fig. 49 The Scrum team

> In order to avoid conflicts of interest, the product owner and scrum master roles should not be exercised by the same person.

As a product manager, you are often the product owner in the Scrum process. As a product owner, you are responsible for the success of the product, just like in the role of the product manager, and you represent the product market and the position of the management of your company. In the Scrum process, however, you are also responsible for ensuring that the team performs optimally.

The team does not necessarily always have to be a product development team. Depending on the application of the Scrum methodology, it can also be a product launch (go-to-market) team that develops and implements a launch (go-to-market) concept/plan.

The team should include all functions that are required for the task completion (finished product, finished market launch concept/plan, finished product strategy) and that is responsible for the implementation of the planned measures. The teams are usually cross-functional.

> To avoid conflicts of competence, the product owner should ideally not be a team member at the same time.

The self-organizing team works in cycles (sprints) lasting from one week to four weeks. The work results after each sprint can also be evaluated by customer feedback, if appropriate.

> The sprints must not be disrupted by the product owner.

As a guideline for self-organising teams, the number of participants should be 7 (plus/minus 2).
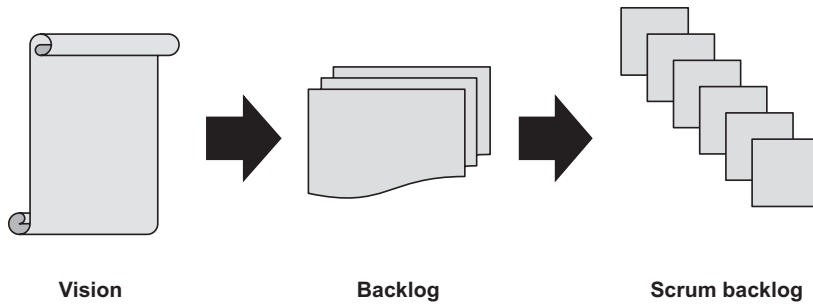
Fig. 50 Main elements in Scrum

6.4   Main Elements in the Scrum Process

The Scrum process includes the following main elements (see Fig. 50):

- Vision and roadmap
- Backlog
- Sprint backlog (increment)

The Scrum process that you use for the development of a new product starts with the development of a product vision/product roadmap. The product vision is a rough idea of the product to be developed and usually contains the following elements:

- Appearance/design of the product (e.g. design sketch, GUI for software)
- System architecture (e.g. software design for software development)
- Central product functions (scope of functions)
- Critical market requirements (functional and non-functional)
- General conditions (constraints)
- Core benefits of the product
- Technologies and technology substitutions
- Target market and main competitors
- Rough economic considerations

Example: Description of the functional scope of a product

The product owner/product manager of a manufacturer of electric toothbrushes had the task of formulating a product vision for a new electric toothbrush to be developed. When compiling the central product functions as part of the product vision creation process, the following range of functions was defined for the new product:

- Tooth cleaning function
- Tooth and gum protecting function

- Controlling function (pressure of the toothbrush on the teeth)
- Feedback function (real-time feedback to improve tooth brushing behavior)
- Fill-in function
- Massage function (for the gums)
- Tongue cleaning function
- Product protecting function (safe storage of the toothbrush)

Ideally, you summarize the product vision on a few pages. The product vision is only presented and specified in detail in the product backlog. You can already check and adapt the product vision at this stage using market and customer feedback. You can also supplement the product vision with a product roadmap. The product roadmap is particularly suitable for the release planning of the product.

If you align the Scrum process with the development of a launch (go-to-market) concept/plan, you start with the development of a launch (go-to-market) vision/launch (go-to-market) roadmap. The market launch vision is again a rough idea about the market launch of the product and usually contains the following elements:

- Key goals of the market launch in the target market
- Key elements of the launch (go-to-market) strategy (e.g. push/pull, niche ...)
- Critical marketing factors (e.g. brand awareness, USPs)
- Core elements of the marketing mix (price, communication, distribution, etc.)
- Critical success factors of the market launch (opportunities, threats)
- Market indicators and financial aspects

You then clearly replace the product roadmap with a launch (go-to-market) roadmap.

The backlog is derived from the vision and leads to further detailing and specification. The product backlog, which is used for the application of Scrum in product developments, usually contains the following elements:

- Precise description and prioritization of product functions
- Detailed description and prioritization of market requirements/user stories
- Specification of the USPs (Unique Selling Propositions)
- Exact description of the target market (customers, users etc.)
- Analysis of competitive products and competitive position
- Economic and financial considerations

Here, the product backlog replaces the market specification used in traditional product development processes.

With the product backlog, the market requirements are described in the form of user stories, replacing the detailed description of the market requirements. The level of detail of such a product backlog is therefore much lower than when using a traditional market specification.

The product backlog should also already be checked through market research, ideally by means of a concept test. This enables an early assessment of the market opportunities of the new product in terms of functional scope and coverage of requirements. The resulting customer feedback also influences the creation of the following sprint backlog.

With a concept test, you can check both the vision and the backlog with a selected group of customers from the target market. In the concept test, a textual and pictorial description is already sufficient. After the presentation of the vision or the backlog, the customers are interviewed. A survey in the context of a product development (product vision, product backlog) usually includes the following questions and topics:

- Is there a clear, credible and communicable benefit of the product?
- Does the product solve a customer problem and how big is the customer problem?
- Is a customer requirement or need being met?
- How important is the customer requirement or need?
- To what extent do other products (own products or competitor products) meet the requirements or needs?
- How interested is the customer in the new product or what does the customer particularly like about the product?
- How high is the purchase probability or purchase intention for the product?
- Are there any additional product features that the product should have?

In the case of more extensive concept tests, the product use and the price-performance ratio are also queried. The evaluation of the surveys carried out shows relatively quickly whether the product is suitable and has sufficient market opportunities (Fig. 51).

Questions	1	2	3	4	5
Do you see a clear and credible benefit?					●
Would this product solve a problem or satisfy a need for you?				●	
How big is this problem/need?	●				
How much does our product currently satisfy this need?			●		
How much do other products (competitor) currently satisfy this need?				●	
How satisfied are you with our product?			●		
How satisfied are you with the other (competitor) products?					●
Is the price in proportion to the benefit?		●			
Would you buy the product?		●			
Evaluation: 1 … negative, 5 … positive					

Fig. 51 Evaluation results of a product concept test

The backlog reviewed and tested in this way forms the basis for the creation of the first sprint backlog. Sprint backlogs define the tasks, results and goals that the team will work on in the next step (sprint). In a sprint planning session, the backlog items for the sprint backlog are selected, determined, and prioritized. Sprint backlogs are sometimes called increments (completed sprint backlogs at the end of the sprint).

> The tasks and goals in sprint backlogs must be feasible/implementable, auditable/testable, and documentable.

Determining the quantity and scope of backlog items to be included in the sprint backlog (increment) is often a challenge for the product owner and the team.

Entries in the sprint backlog for product developments can be:

- Functional groups, individual functions or partial functions of the product
- Market requirements or sub-requirements (functional and non-functional)
- User Stories or subgroups of user stories derived from them

Example: Decomposition of a function into partial functions

The product manager for electric toothbrushes of a consumer goods manufacturer had the task as product owner to prioritize the functions in the product backlog and to further break them down into sub-functions for the entries in the sprint backlog. Together with the team, the basic function "tooth cleaning" was broken down into further sub-functions and described during a sprint planning session.

- Basic function: Tooth cleaning
- Subfunctions:
  – Deep cleaning function
  – Quick cleaning function
  – Special cleaning function
  – etc.

The development of entries for the sprint backlog from the backlog during the sprint planning meetings often also leads to the actual backlog being adjusted again.

Not to be forgotten is the estimation of the necessary effort (time and money) for processing the tasks in the sprint backlog. While effort estimates in the backlog are rather rough, the effort estimates in the sprint backlogs are much more detailed.

6.5   The Scrum Process

If one goes through the Scrum process completely, five phases can be identified. The Scrum process starts with the development of the vision/roadmap. The vision forms the basis for the development of the backlog. Sprint planning is used to develop the sprint
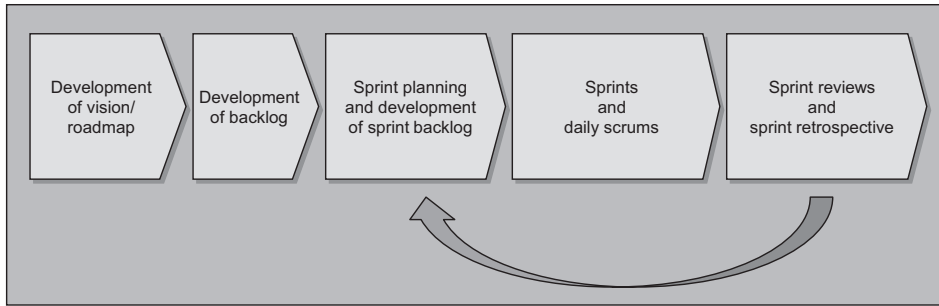
Fig. 52 The complete Scrum process

backlogs. The sprint backlogs are worked through in the following sprints. The daily scrums, short daily meetings, are used to check individual and team progress, plan for the next day and eliminate problems and obstacles in the implementation. In the sprint review, the team presents the result to the product owner. The product owner also accepts the results in the sprint review. At the end of the Scrum process, the sprint retrospective takes place with the goal of optimizing future Scrum processes (Fig. 52).

6.6   Tasks of the Product Owner in the Scrum Process

Working in a Scrum team and using the Scrum methodology is usually a big challenge for product management. The Scrum master is an important part of the team and an important support for you as a product owner, especially in the introduction phase of agile product management.

As a product manager, you have the following main tasks in the Scrum process in the role of product owner and as a member of the Scrum team:

- Representation of all stakeholders
- Creation of the vision and roadmap
- Creating and maintaining the backlog
- Prioritization and grouping of backlog entries
- Creating the Scrum backlogs
- Inclusion of stakeholders in the Scrum process phases (customers, interest groups ...)
- Management of resources (money, time ...)
- Collaboration with Scrum master and team
- Participation in the sprint planning meeting and in the daily scrums
- Acceptance of the results in the sprint review
- Ensuring the learning and optimization process in the sprint retrospective
- Contact person for questions from the team

Table 2 Checklist process-oriented product management

	Applies	Applies little	Does not apply
We have clarity in our company about the most important work processes of the product manager.	☐	☐	☐
We have a meaningful product controlling system at our disposal.	☐	☐	☐
As part of our life cycle management, we regularly conduct life cycle analysis for our products and adjust the marketing mix accordingly.	☐	☐	☐
The age structure of the products in our company is adjusted and optimised in accordance with the objectives.	☐	☐	☐
We are aware of our customers' purchasing processes and the use of marketing instruments is coordinated with this.	☐	☐	☐
We have a clear UMP in the marketing of our products compared to the competition.	☐	☐	☐
Our innovation and launch (go-to-market) processes are optimized and lead to successful product launches.	☐	☐	☐
Through our internal marketing activities for product launches, we achieve not only a high level of motivation, but also a good professional basis.	☐	☐	☐
Through our innovation efforts we have achieved that sufficient product innovations are available.	☐	☐	☐
Product managers have a mature launch (go-to-market) concept and a coordinated launch (go-to-market) plan at their disposal as planning aids.	☐	☐	☐

7   The Implementation: Checklist for the Identification of Optimisation Potentials

Here, too, use the checklist to identify the central optimization potentials (see Table 2). Changes to processes and procedures in your own company are somewhat more difficult to handle because process interfaces exist with other areas. Include these areas in the identification and optimization of weak points in order to be able to eliminate resistance at an early stage.

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