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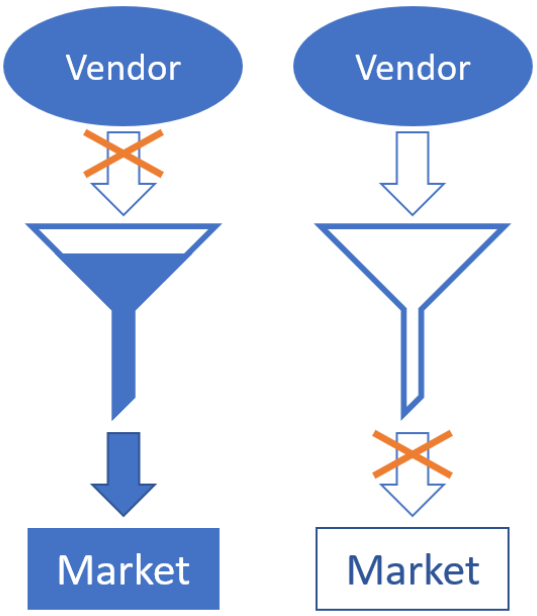


# Best Practice Rules for an Efficient Product Portfolio-Management

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# Best practice rules for efficient product portfolio management

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**Many, if not practically all, companies are constantly struggling with the consequences of the "CZ explosion": the diversity of variants in their product portfolios is blowing up in their faces, inventories are rising despite declining service level, margins are eroding. In most companies, variant diversity is still seen as the solution to all sales problems. What successful companies are doing on the logistics and supply chain management side to get a grip on variant diversity is presented in more detail below.**

Dealing with the product portfolio is often seen as the domain of product management, sales and marketing. Without wanting to talk these areas into their responsibilities, there are good arguments not to ignore the voice of logistics and supply chain management when it comes to maintaining the product portfolio. Because often enough, supply chain management has one of the most matter-of-fact voices in the chorus of emotions singing the topic of product portfolio management. It sounds terribly boring at first, but it is terribly true:

## Basic principle 1: Product portfolio costs money

**A product portfolio costs money and so does any expansion of it.**



Every new product incurs costs in development, production and especially in logistics. Logistical performance is a service feature of every product on the market. This applies to already launched products as well as to new ones. Of course, we expect, for example, the online mail order company to have the ordered products in stock. Even more, we expect them to be delivered by the parcel service the next day! However, if we are frequently informed by a retailer that ordered products are not available, we switch to the competition - no matter what great company image the marketing and advertising strategists have put in place.

Such requirements have long since ceased to apply only in the Business-2-Consumer sector. In the business-2-business sector, too, ever shorter delivery times and ever higher service level are demanded. Logistically, the demands of the market mean two things above all: stocks and capacities. If finished products do not have to be kept in stock anyway, then at least semi-finished products must be kept in stock at sometimes high value-added stages in order to be able to complete the finished product at short notice. The former requires high inventories, the latter flexibility in production and transport capacities and, in any case, both cause costs!

The price of a product must also take into account all the logistical costs associated with a particular value proposition. For new products, these logistical costs are usually too high to be truly reflected in the price. In preliminary costing, overhead rates are often applied to the direct costs. These overhead rates result from corresponding cost allocations from the operational accounting and thus represent an average value consideration. If each individual part bears this percentage overhead rate, then these costs are covered. Although this is correct, it does not take into account that the actual distribution of expenses and thus cost causation is not proportional to the direct costs.

New products and exotics cause high logistical standby costs in the form of basic requirements and, above all, safety stocks. Both groups often suffer from highly fluctuating demand and thus require high safety stocks in order to be able to deliver. Offering new products without being able to deliver them may make the product sexy in some industries, but in others it makes it a flop.

No one in a company wants a new product to vegetate in exotic status forever. Rather, it is hoped that demand for the product will increase and become more regular, so that future logistical costs will decrease.

Later, sales, scheduling and - if available - product management check far too seldom whether these expectations have actually been met. If the hopes for product success have not been fulfilled, the sales department in particular likes to point to the product range constraint: this makes it necessary to keep a product in the range that does not cover costs in order not to jeopardise the sale of other, more lucrative articles by losing good customers. And so the number of exotics in the product portfolio grows until the critical mass is exceeded and the "CZ explosion", which we will look at in more detail later, takes its course!

At this point we have to state:

**Best practice building block No. 1:** Every new product requires a "residual lifecycle cost" consideration, which must be updated every three months.

The essential cost packages that should be under regular, if not continuous, consideration for new products include the logistical standby costs, the current disposal costs and the development of the real contribution margins. In our experience, it makes no sense to focus on the "total lifecycle cost" at this stage. "Sunk costs, i.e. costs incurred in the past, are no longer relevant for future decisions. Only the costs that will be incurred in the future play a role here.



The decisive factor in logistics readiness costs are the warehousing costs for the necessary basic requirements and safety stocks across the entire supply chain. Not only stocks at the finished goods and component level play a role, but also stocks that are held by suppliers but financed by the customer.

If a product is no longer offered on the market, there are occasionally residual quantities of raw materials, materials, semi-finished and finished goods that can only be sold at reduced prices or even scrapped or disposed of as hazardous waste. The balance of these costs represents the disposal costs. Suppliers generally demand acceptance obligations for specific raw materials, drawing parts and product-specific assemblies if these parts are not accepted by the customer within a defined period of time. All of this also counts as disposal costs.

Ultimately, the development of the contribution margin must be continuously monitored for each new product. Negative contribution margins may be temporarily unavoidable from a market strategy perspective, but they must be eliminated quickly.

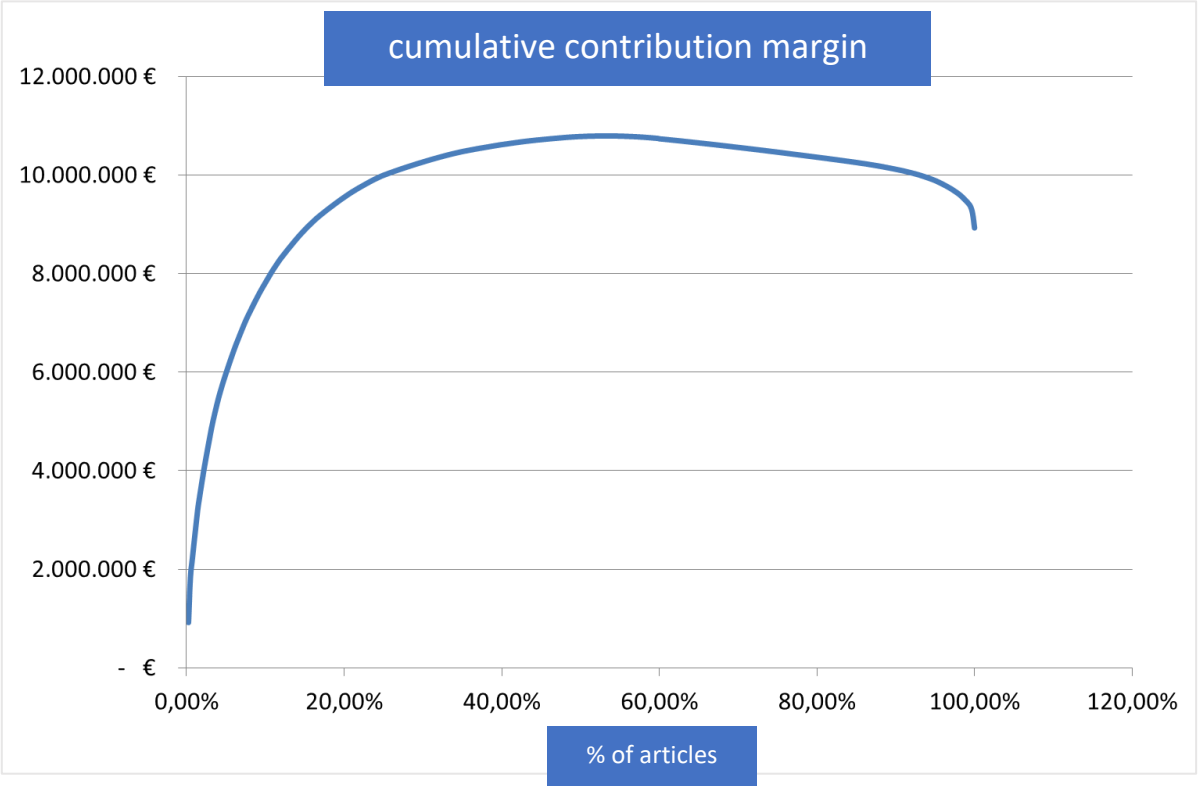


Figure 1: Even the example of a classically calculated contribution margin curve shows the extent of profit wastage



Looking at the contribution margins alone is of no use: these rarely reflect the logistical stand-by costs realistically, nor do they take future disposal costs into account. Items with negative contribution margins are definitely "red" - but items with positive contribution margins are not definitely in the "black".

While product management, sales and marketing think in terms of commodity groups, product groups, commodity group hierarchies and market segments, from a logistics perspective these structures are not sufficiently differentiated. Structuring criteria for the product portfolio must go deeper and evaluate the logistically relevant characteristics of a product portfolio:

## Basic principle 2: Structuring and classifying

**Only by structuring and classifying does a product portfolio become transparent in logistical terms.**

The importance of a product from a logistics point of view is expressed primarily in its warehouse throughput. The warehouse throughput is understood to be the stock issue quantity of a material multiplied by its cost price. At the finished goods level, these are typically the sales quantities, valued with the manufacturing costs. Based on the stock throughput, the articles can be differentiated according to classic ABC consideration - e.g. 80/15/5. In addition, ABC considerations according to stock, cover amount or turnover can provide important information.

The fluctuations in demand for a product that the value chain has to cope with are classically described according to X, Y and Z classes. X-items enjoy a rather regular and even demand, for Y-items the demand already fluctuates significantly and for Z-items the demand flutters. For various statistical and strategic reasons, we also distinguish between Z2 items, whose demand, in practical terms, represents a "disaster in terms of demand".

The ABC/XYZ classification of articles and materials is part of the minimum standard in logistics today, but even this is still not far behind in many companies. Moreover, in order to evaluate a product portfolio from a logistics perspective, these two criteria are not enough. Rather, the life cycle of an item and the number of demand generators must also be taken into account.

During its life cycle, an item passes through the stages of incoming (E), living, (L) and outgoing (A). The number of demand generators behind the quantity demand of this article is also of great importance for the right logistics strategy and can be classified according to STU.
S-items have one or two, T-items a small number and U-items a large quantity of demand generators. At the finished goods level these are the direct customers, at the component level the higher-level materials that trigger dependent requirements.

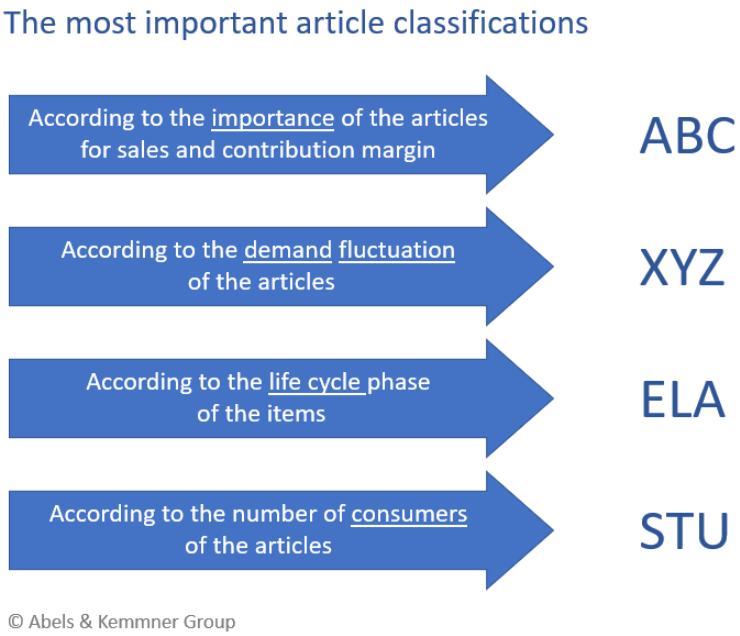


Figure 2: You should structure your product portfolio in at least four dimensions



**Best practice building block 2 says:** Structure your product portfolio at least according to the four most important dimensions ABC, XYZ, ELA and STU.

A first insight resulting from this form of logistic classification of the product portfolio formulates basic principle 3.

## Basic principle 3: A large proportion of articles are cross-subsidised

**A large part of the CZ2 items and many of the CZ items have to be cross-subsidised by the AX items. This makes AX items more expensive and less competitive.**

We have already talked about the exotics in the product portfolio. Exotics are sold in small quantities and thus have low stock throughputs. For the vast majority of exotics, demand is therefore extremely irregular and they therefore fall into the CZ and CZ2 classes of the product portfolio. If one follows the composition of a product portfolio over the years, one finds that the number of items does not increase evenly across all portfolio fields, but rather grows primarily in the CZ and CZ2 areas.

This is not surprising, because every new product begins its life as a CZ2 or at least CZ article. If it is successful on the market, it develops into an AX article in the best case, or at least moves out of the CZ/CZ2 corner. Unfortunately, the natural laws of the market mean that very few articles are successful. The majority of all articles never find their way from the depths of the product portfolio to the heights of market success. Thus, the product portfolio is disproportionately enriched with articles in the CZ/CZ2 area.

We already talked about the problems in calculating the costs and thus the price of an article at the beginning. The calculation problems tend to lead to CZ and CZ2 items being underestimated in their actual costs and AX items being overestimated in theirs. This costing distortion can be easily illustrated with the example of distribution. Many of us know the star salesmen from our companies who are responsible for important key accounts or sell dominant product racers. In addition to these few stars, a large number of hard-working salespeople often fight on small product and customer fronts in sales. While the supposed stars hardly sell at all, but only have to note down what quantities their customers want, the rest of the crowd works hard to bring the famous "sour beer" to the people.



All too often, the total costs of distribution are only allocated according to "carrying capacity", which means nothing more than that they are added to the product calculation in proportion to turnover. Thus 20% of the best-selling items quickly bear 80% of the total distribution costs.

The classic example of this development is provided by the food discounters in Germany. For years, they took market share from the traditional retail trade. They concentrated on a few articles: the AAXX articles of daily life.

This enabled them to make their value chain cost-effective and to buy in large quantities with corresponding discounts. The classic retail trade offers a wide range of other articles, including many genuine exotics, in addition to the bestsellers of the discout market and, in order to be able to finance this, has to sell its bestsellers on average more expensively than the discounter.

Do you think this is a special case of retail? If we look at the development in the German or Swiss machine tool industry, we can see a similar effect. In the sixties and seventies of the last century, the machine tool industry was proud of the customised special solutions it could offer thanks to its engineering advantage over the Japanese competition that was just emerging. What customer wanted "soft as butter" lathes that bent every time a larger part was machined and could only maintain low manufacturing tolerances, ...or so they thought.

But the buttery Japanese lathes were cheap because the manufacturers concentrated on standard machines - probably more out of engineering deficits than market strategy considerations. Perhaps not so surprisingly, many customers needed these buttery machines. For small, less demanding parts, they were quite economical. By leveraging such unexciting bread-and-butter machines, the Japanese manufacturers opened up the world market. The Central European machine tool industry only regained market share when, thanks to its engineering competence, it understood how to build its products according to modular principles and thus closely link standard and customised solutions.

The AX portfolio is the typical point of attack where new competitors break into existing markets. For this reason the

**Best practice building block 3:** Successful companies keep their portfolio raft in balance.

If a company wants to go down the path of streamlining its product portfolio, it should not be afraid of the spectre of product range constraints, because it applies:

## Basic principle 4: Range constraints

**Range constraints are the blinkers of product policy.**

If one economic party forces another to purchase or supply not only the products desired by the other party, but a more or less defined broader assortment, this is called assortment coercion.

Assortment pressure is found on the supplier side, predominantly in business-to-business transactions. Assortment pressure can be exerted by a supplier who forces his customers to buy a complete assortment or by customers who demand that a supplier provide rare and irregularly required articles in addition to those they need regularly and in large quantities.



A compulsory assortment demanded by the customer is rarely contractually fixed, but is understood by the sales department as a service or is provided in anticipatory obedience.

From the point of view of product portfolio management, assortment constraint by the customer plays an ungodly role. Real assortment constraints exerted by the market or explicit customers must be handled with extreme caution, yet we regularly find that assortment constraints are one of the most overrated criteria in product portfolio management. This sounds very daring for a logistician. However, assortment constraints are not a nebulous matter, but can be statistically recorded and scrutinised:

- When product A was purchased, how often was product B also purchased?
- If product B is often bought with product A, couldn't product C be offered instead?
- is it then a compulsory connection for the customer or just a collective order?

As important as product range constraints can be in individual cases, they are unimportant in many other cases of product range policy. If a company were to design its product portfolio only according to the supposed product range constraints of its customers, all of the company's problems would dissolve in insolvency in the medium term.

The product portfolio is decided by a whole series of other criteria, both strategic and economic. Ultimately, money must be earned with the current product portfolio, so no one can close their eyes to the contribution margins of the individual products. Economic constraints continue to be exerted

by the safety stocks that are necessary to keep a product at the required service level. The residual stocks that would remain if one were to part with a product in the short term must also be taken into account when streamlining the product portfolio.

It is more difficult to part with items with high turnover shares than with items with low turnover shares, even if they only have low contribution margins. This is not least because they can be important for the perception of a company in the market and they also hold great earnings potential if it is possible to improve the contribution margins.

From a strategic point of view, it is important to ensure that the articles are distributed over the entire product life cycle: at least in the case of high-contribution articles, it is better to have a left-skewed distribution (more articles in the new starters) than a right-skewed distribution (more articles in the discontinued products).

For this reason, we can state:

**Best practice building block 4:** Six central criteria decide whether an item remains in the product range. Only one of them is the assortment constraint.

Anyone who has ever been involved in discussions about streamlining a stock manufacturer's product range knows how intensively the sales department in particular defends the exotics in the product portfolio. The easiest way to get them to do so is to tie the introduction of new products to the discarding of old ones. A sales organisation that earns money from every fish it catches and does not have to pay for the fishing itself is behaving completely consistently when it opposes the streamlining of the product portfolio. For this reason, the aspects of new launches and discontinuation are always seen in relation to each other.



Another major reason for the hesitant behaviour of sales can be located in Basic Principle 5.

## Basic principle 5: Product cleansing

**Many companies make decisions in product streamlining like in the Roman circus: thumbs up or thumbs down.**

If the sorting out of products is only a matter of "either, or", this is not only painful from a sales point of view, but can also be very painful for logistics. This is always the case when a product to be discarded still has a lot of remaining stock or open deliveries from suppliers that the supply chain would be left with.

However, the world of product portfolio management cannot simply be seen in black and white - especially not from the perspective of logistics and supply chain management. Fine gradations are possible between a brightly shining item with a high service level and a darkly disappearing item that can no longer be delivered. For example, one can first think about withdrawing the service level of an article. The item is then still available, but it will be more common for customers to have to wait for delivery of the item. In our experience from numerous projects, customers accept this when it comes to exotic items that are either only offered by one specific supplier or are difficult to get from all relevant suppliers.

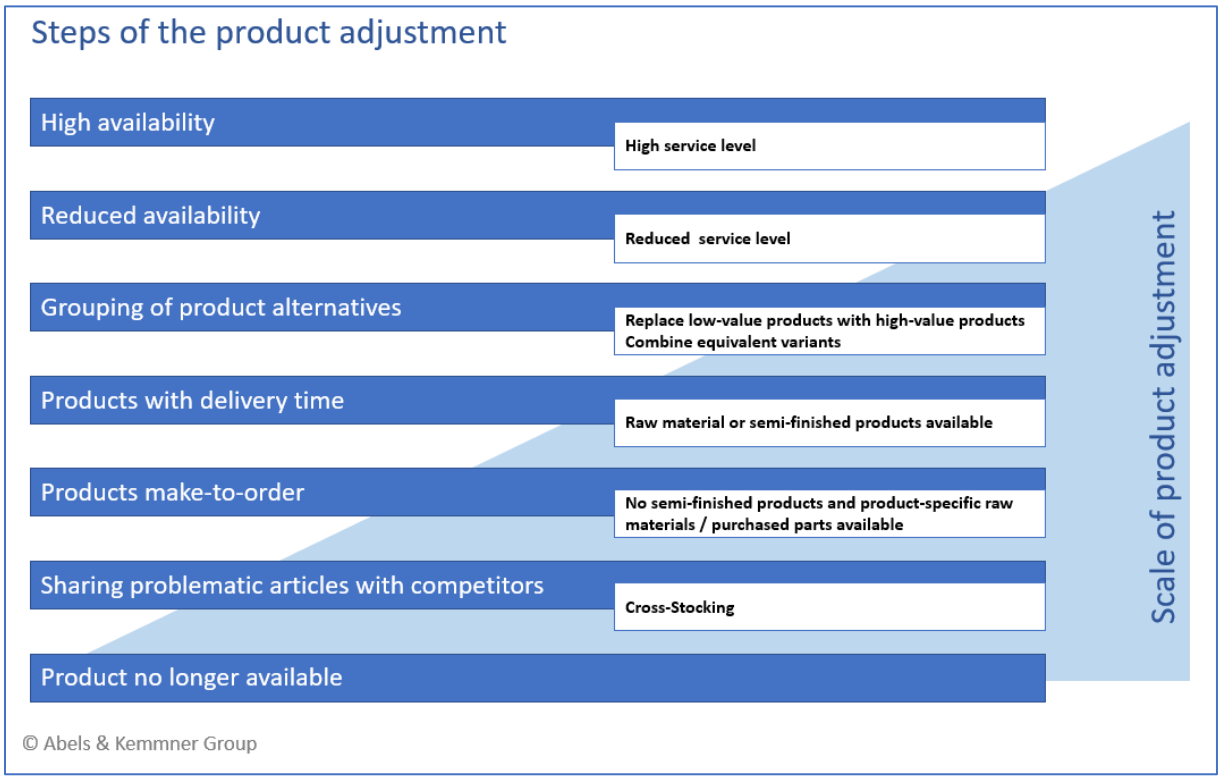


Figure 3: At least seven stages of product cleansing can be distinguished



The strategy of providing products with a delivery time and only keeping the necessary raw materials and semi-finished products in stock goes one step further. These can then be used to manufacture the required item as needed. With this strategy, too, the article in question will be available in parts from stock, since in most cases it is produced in batches and not in individual pieces. The lot quantities that exceed the customer's demand will then be in stock as finished goods. In various cases, our simulations have shown that an immediate deliverability of 50 % can still be achieved with this.

If you do not keep semi-finished products, specific raw materials or bought-in parts in stock in order to be able to manufacture the final product, you end up with a "product to order", where delivery times can be considerably long and where you have to make sure that the sales price also covers the production costs.

Only the last step is not to deliver a product at all.

In many cases, it is not even necessary to think about the phased elimination of an item if the aggregation or substitution of items has been considered beforehand. For example, it can be much more cost-effective to dispense with several lower-value variants of a product in favour of a higher-value variant that replaces all of them. The higher material and prime costs can be more than compensated for by the inventory and disposal costs saved. You aim in the same direction if you combine several variants of equal value into one variant, e.g. by reducing the number of product sizes offered.

A sometimes bold but sometimes very successful strategy can be cross-stocking. In cross-stocking, two competitors share their trouble with CZ and CZ2 parts by splitting the respective product portfolio and supplying each other mutually.

As you can see, streamlining the product portfolio can be a colourful affair with exciting new possibilities. That is why we hold firm as

**Best practice building block no. 5:** Successful companies maintain their product portfolio regularly and consistently, but in a differentiated way.

When maintaining the product portfolio, you do not always have to find the right answers yourself if you get involved with basic principle 6.

## Basic principle 6: Customers react sensitively

**Customers react sensitively to price differentiation.**

Everyone involved in sales is familiar with haggling over the price of a product or service: the saleswoman in the fashion boutique as well as the sales manager of the large corporation. Often regardless of the value a product or service has for a customer, customers and buyers try to push the price down. The extreme price sensitivity of the market can sometimes be cleverly used to streamline the product range.

In a first step, you can reduce the price of preferred variants and thus reduce the demand for unpopular variants. In the short term, this can lead to a loss of income, but in the medium term it can lead to increased income due to volume effects.



Customers who have stayed with their original product variants despite the price differentiation are either less price-sensitive or need "their" regular product variants for certain reasons.

In a second step, you should now consider making the unloved product variants more expensive. This will attract another part of the customers to the cheaper variants and thus strengthen the volume effects there. This step will cause some of the customers to change you as a supplier. But the part of the customers who remain with their traditional product variants will not be happy, but will be forced to pay you the higher prices and thus better contribution margins.

The fewer customers you have to deal with, the more careful you have to be with step 2 of this strategy. We will come back to this aspect later. Nevertheless, Building Block 6 applies to successful companies.

**Best practice building block 6:** Successful companies involve their customers in the assortment adjustment via price differentiation.

Whichever way you arrive at a streamlining of your product portfolio, in order for a product streamlining to be as cost-efficient as possible from a logistical point of view, you must observe the basic principle 7.

## Basic principle 7: Supply chain needs time

**A supply chain needs time to run empty in order to keep the costs of remaining stock low.**

Remaining stocks are a regular nuisance in logistics. They always arise when production quantities can no longer be sold on the market, and there are a wide variety of reasons for this:

- Excessive demand forecasts for new products or living products lead to quantities that you will either never be able to sell, that exceed their expiry date or that are no longer usable as spare parts due to technical changes, or that can only be used as spare parts in customer service.
- Another, but often neglected, cause of residual stock and disposal costs results from product purge. In companies that produce for an anonymous market, a product phase-out should always take place in two stages: In stage 1, the product is discontinued "internally". Logistically, this means that the sourcing of the product itself or the product-specific raw materials, materials and semi-finished products is stopped. Let the value creation pipeline run as empty as possible before discontinuing the product "externally" in stage 2. Once the product has been withdrawn from the market and can no longer be found in the catalogue or on the websites, you can only utilise the remaining stocks at the various stages of the value chain for spare parts and warranty purposes.

For this reason:

**Best practice building block 7**: In companies that manufacture for an anonymous market, a product discontinuation always takes place in two stages: internal discontinuation and external discontinuation.



In anonymous markets you know your customers statistically, but not personally. In contrast, in known markets, especially in the capital goods sector, the customer must be understood as an individual contractual partner. Companies that do not take this into account quickly learn Basic Principle 8.

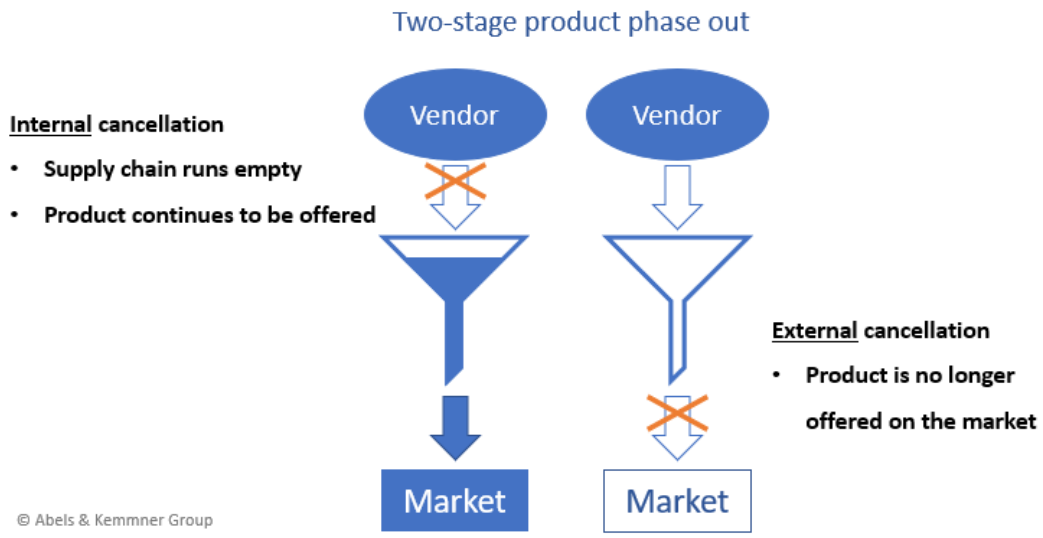


Figure 4: A two-stage discontinuation of a product ensures that the remaining stock in the supply chain can flow out

## Basic principle 8: Customers react negatively

**Customers react negatively to product streamlining if they are not informed and do not have time to react.**

No one likes to voluntarily give up products to which they have become accustomed. Many customers who ask you and thus practically request approval for a product streamlining will at first be reluctant. For this reason, it should be clear in advance of the customer information which products and variants you want to eliminate from your product portfolio. Sales can then inform the customers about alternative products, if possible from their own company.

If there is no longer an alternative product in your own company, but you know of a suitable alternative from a competitor, you should point it out to the customer. If he needs the product, he will find your competitor anyway. If you point him in the right direction right away, you improve your cards a little; especially if the customer continues to stay with you with other products. Giving the customer a deadline for last orders should be a matter of course.

Particularly customer-oriented companies sometimes go one step further and support good customers with special services as part of a product adjustment. For example, you can grant customers special conditions for products they continue to purchase or support customers in making the necessary process adjustments to an alternative product or a new raw material. The assumption of development or quality testing costs for the alternative products may also be an option.



In summary, this strategy can be summarised as:

**Best practice building block 8: The** articles affected by an assortment adjustment in the B2B area are to be determined independently of the customers. The subsequent implementation must be done in interaction with the customers.

Without innovations and further developments of existing products, the company usually does not survive for long or at least loses market share. International competition in particular makes it necessary to be one step ahead of "the others". However, the world of long-lived and short-lived goods differs drastically here. For companies that earn their money with short-lived goods, basic principle 9 applies.

## Basic principle 9: Novelties and availability

**With short-lived goods, you almost only have to deal with novelties and usually struggle with over- or under-availability.**

The prime example in this area is the fashion industry, which to a large extent only works with "one-shots", i.e. articles that are only produced for a single season, and which can only sell these articles on the market for a short time.

Ideally, you should prepare the best possible demand forecasts as early as possible. However, the statistical and methodological tools available in this area today leave much to be desired. We are currently analysing various approaches to improve the quality of forecasts in this area, but this is still more basic research than concrete approaches to solutions. Ultimately, when forecasting new

products, especially in markets with short consumption periods, it still comes down to the "gut feeling" of product management to estimate the demand quantities for a new product.

Time and again we have found that products that are advertised later generate significantly higher sales than those that were not explicitly advertised. This is not surprising. However, we are amazed when we realise that in many companies the decision on which new products to advertise is only made after the procurement processes and sometimes even the production processes have already started. At this point, of course, it is too late to adjust the quantities and produce the advertised product in higher numbers.

If forecasting methods do not help you to determine the demand quantities of certain items in the product portfolio more precisely, you have to design your supply chain and value chain as flexibly as possible, i.e. align your logistics business model accordingly. We cannot discuss how to do that here. However, it is important for product portfolio management that the obsolescence risk, i.e. the risk of being stuck with product stocks and having to scrap or sell them off, is included as a residual risk in the product's profit margin.

Thus reads:

**Best practice building block 9:** When manufacturing and marketing short-lived goods, design the supply chain to be as flexible as possible and calculate the residual risk into the profit margin.

Under the aspect of product portfolio maintenance, we also have to take a look at durable goods from a logistical point of view, because basic principle 10 applies here.



## Basic principle 10: Observe durable goods

**In the case of durable goods, novelties often cause a great deal of planning effort, high inventory costs and a high cost risk in the entire supply chain, which must be borne by the living products in the event of incorrect planning.**

With durable goods, too, there is a risk of overestimating or underestimating the need for new products. In contrast to short-lived goods, however, there is the possibility of better balancing stocks and service level over time. Above all, there is a chance to sell off any excess stocks over a longer period of time. In this way, storage costs are incurred, but not scrapping costs. Of course, this only applies as long as a poorly selling product continues to be offered on the market and is not taken out of the product portfolio too early (see best practice module 7). However, our experience from numerous projects shows that for manufacturers of technical products, more than 30 % of new finished products per year can no longer be handled economically from a logistical point of view and eat up supposed marketing advantages through a high new product rate.

Strictly speaking, this threshold is not about the share of new products in the total number of items in the product portfolio, but about the percentage of stock to be held for the new products in the entire supply chain in relation to the total stock in the supply chain. For this reason, parallel to the introduction of new products, it should always be checked which "old" CZ and CZ2 products can be taken out of the range. Logistically, however, this is a different front. Discarding poorly performing articles is an important task in itself. But it does not legitimise an excessive introduction of new products.

For this reason, we need to consider for durable goods:

**Best practice building block 10:** For technical products, 30 % new products per year introduced by "big bang" mark the border to logistical suicide. Successful companies stay below that.

In many industries it is common to be active with new products in all markets at the same time and for many products this may not be possible otherwise. Fashion, for example, has only a limited life cycle and must be presented quickly in all markets where it is to be sold. What is true for fashion is generally true for the majority of short-cycle stock products.

Getting into business everywhere at the same time with a new product requires a great deal of effort throughout the supply chain, because this can be stated as a basic principle 11.

## Basic principle 11: "Big Bang" or "Long Chime

**New product launches via "big bang", i.e. in all markets at the same time, require high inventories and high flexibility costs in the supply chain, combined with long lead times.**

With new products, there is typically the problem of predicting future market demand. If you want to be able to deliver despite uncertainties, you have to stock up well on the new products. In the worst case, you need safety stocks in all markets. The necessary stocks need to be built up before they can be sold if necessary, and for this the necessary components need to be procured, manufactured and assembled. Such a "new product piglet" thus has to be pushed through the queue of the entire supply chain and slowly digested.



Worse still, entire collections of parts often have to be brought to market. The snake of suppliers and own production thus has to digest a whole herd of piglets at the same time. As the snake must stretch, so must the supply chain, and that means additional costs for the required flexibility.

However, the reality is even meaner than described so far. Not only your company, but also most of your market competitors think and work in the same rhythm, partly burdening the same supply chain, the same suppliers with their herds of piglets at the same time, which drives up the costs of the suppliers and thus your costs even further.

Not all sectors and all companies that introduce products via a "big bang" strategy would necessarily have this strategy if they had the courage to break away from this lemming behaviour.

In many industries, it has long been common practice to test demand for new products in "test markets". In the food industry, for example, this is a typical approach of many suppliers. In the case of more durable goods, such as technical products or luxury goods, this strategy offers the opportunity to dispose of the lower material stocks in other markets if a product is not successful in its launch market.

If the launch is successful, you can ramp up the supply chain. You can use the increasing utilisation of the supply chain for products such as consumer goods, where high delivery capacity and thus good market supply are important, to satisfy the increasing demand in the launch market. Only then should you expand supply to new markets. In the case of products for which a certain exclusivity is

one of the characteristics, you would possibly first add further distribution markets or supply the initial markets better and thus further fuel the exclusivity character in the subsequent markets.

However, by discussing how we distribute the growing output of the supply chain to the markets, we are poaching in the realm of marketing and distribution strategy and this should be left to the appropriate professionals. The main thing is that the experts think about whether, instead of a "big bang" market launch, a "long chime" strategy is conceivable, in which the markets are successively served and filled and the supply chain can better run dry if the products do not arrive on the market.

Big bang or long chime strategy at launch?

| | Big Bang | Long Chime |
|---|---|---|
| Chance | • Fast on the market<br>• Premium prices possible | • Low total cost of ownership<br>• Better margins<br>• Lower inventory costs<br>• Low scrapping volume<br>• High service level in served markets |
| Risk | • High excess inventories<br>• High scrapping volume<br>• low service level | • Too late to market with new products<br>• Premium prices for the first suppliers can no longer be charged |



Figure 5: Big bangs don't always have to be at market launch



Let's imagine how beautiful the supply chain world could become if not all products were brought to all markets at the same time, collection by collection. Much lower flexibility costs throughout the supply chain, lower scrapping costs and better delivery capability would be the result.

For many companies, such a world would be unthinkable. But there are always companies that do the unthinkable, thereby significantly improving their margins, incidentally setting themselves apart from the market and thus proving best practice building block 11:

**Best practice building block 11:** Big bang or long chime: Successful companies check whether and how abruptly new products really need to be introduced.

It is well known that not everything about a new product has to be new. New products are often only product variants. Now, product variants can be developed in such a way that variant spreading must take place early or late in the supply chain. Logistically, late variant spreading is better than early spreading. However, the best variant spread for the logistician is the one that does not take place at all...

No matter whether the new products are variants of existing products or not. One can always think about the use of common parts.

The common parts strategy starts with a few standard screws in different products and extends to the same assemblies in different products. The reflection is worthwhile, because as Basic Principle 12 states.

## Basic principle 12: Use modular system

**The fewer different products that can rely on common parts, assemblies and manufacturing processes, the more cost-effective and controllable the value chain and supply chain become.**

A diversity of variants, where the creation of variants takes place late in the value stream, counteracts a CZ explosion at finished goods level, which can break the neck of any company. Ideally, variants would no longer be stored at the finished goods level at all, but would be final assembled on an order-by-order basis. This is a strategy that is possible and common in many sectors and at countless companies. This is how the automotive industry works on the European market and this is also how most of the machine tool industry works.

A standardised range of variants, using as many identical parts as possible, also prevents the CZ explosion at component and assembly level.

Starting from an existing broad product portfolio, the path to a standardised variety of variants is long and the effort required is considerable, unless the concept is taken into account right at the beginning of a new product development.

We can therefore state as



**Best practice building block 12:** Successful companies standardise their variety of variants. And they start doing this right at the beginning of the life cycle of a new product by already thinking ahead about possible variants.

And with this last consideration, we have finally arrived at the borderland between portfolio management, product management and product development - and have thus reached a first finish line for optimal product portfolio management.