

Dear readers

At the end of 2020 the crisis is still not over in many industries. The topic that we addressed this year (Crisis & Controlling) – which we actually commenced prior to the outbreak of the Covid-19 pandemic, but which is more relevant than ever due to the crisis that continues to plague us all – has now been concluded with a publication that the publisher Haufe-Verlag will release in February 2021.

One topic that companies must address after overcoming a crisis is the realignment of their business model. We have therefore chosen service-based business models as our next thematic focal point. While such models are still rarely addressed from the perspective of controlling, they are becoming increasingly important as digitisation becomes more widespread. In this quarterly we would like to give you a first insight into the ICV Think Tank's new thematic focal point: Servitization & Controlling.

We wish you a Merry Christmas and a calmer year 2021.

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Reading tip

The book **Servitization als Wettbewerbsfaktor: Chancen für Geschäftsmodelle und interne Prozesse (English: Servitization as a Competitive**



Factor: Opportunities for Business Models and Internal Processes),

published by Andreas Klein, presents various dimensions of servitization, i.e. the change and enhancement of

product-based business models through various forms of services. The book supports both managers and controllers by providing a basic overview of the changes needed when introducing product-related services. In addition to an essay on the pricing of digital services, the book contains an article that explicitly addresses the controlling of product-related services, including a discussion of the associated challenges and potential solutions for implementation. The book focuses not only on servitization, but also on the analysis and control of digital processes and the enhancement of business models.

Fundamental elements of subscription models | Effects on corporate management

Subscription models are the business models of the future. What are their characteristics and how do they affect corporate management?

Two weeks after Walmart launched its subscription model, 11% of Americans were already using this offering (see Vena 2020). This and other examples, including the success of subscription services such as Disney+ or Netflix, show the relevance of subscription models. Subscription models are business models in which the customer pays a recurring price for access to a product. They are characterised by four features (see Fig. 1): they function without the transfer of ownership, enable a short notice period, are billed using Pay-per-X models, and evaluate usage data to achieve continuous improvement (see Seiter / Kenner, 2020).

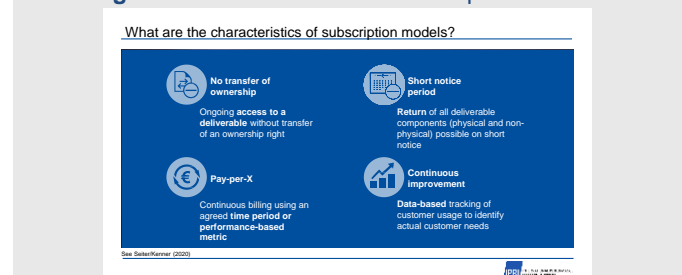
Compared to the purchase of a product, ownership does not transfer. Instead, the provider remains the owner in the subscription model. This means for the customer that a lower investment volume is necessary, and therefore also a reduced financing requirement. The shorter notice periods give customers greater flexibility. At the same time, the provider's risk increases. This makes it all the more important for the provider to build long-term customer relationships through performance, not through contract periods. With Pay-per-X models, the customer is billed regularly for the service, either according to a time period or based on a performance metric. An example of such a performance metric is the number of pieces that a machine produces during the billing period. A further enhancement of this performance metric would be the number of faultless parts. With the Pay-per-X billing model, the customer therefore incurs costs only when it receives services, thus making the customer's cost structure more variable. This billing model underscores once again the transfer of risk from the customer to the provider. The provider, however, has the benefit that it is constantly acquiring data, which it can then use to optimise its offering not only for the specific customer, but for all customers.

Two further examples are Walmart+ from the American stationary retail chain Walmart, and Apple One from Apple. Walmart+ offers unlimited, free, same-day deliveries to Walmart customers for purchases made via its online shop. In addition, customers in the supermarket can scan their items themselves with their smartphones, which means they do not have to proceed through the checkout. Customers may also purchase petrol at special rates at Walmart's own filling stations and at selected partner petrol stations. The motivation for this offering is the success of the competition from the Internet.

Walmart aims to position itself over the long term as an online platform for all needs. Apple for years has been supplementing its main hardware business with an online platform for digital content, i.e. iTunes and Apple Store. The innovation with the Apple One subscription model is the bundling of Apple's digital services. The group aims to achieve network effects for its new digital services, such as gaming and fitness. In the long term, Apple might also try to merge its hardware and service business via a subscription model and, for example, grant an exclusive annual replacement of an iPhone when customers purchase a new device. Subscription models with even greater integration of a physical product can be found at Tesla or Trumpf. Tesla, for example, aims to enable a subscription-based activation of its full driver assistance system. At Trumpf, laser cutting machines are to be offered via subscription model in the future. Its financing partner in this new approach will be Munich Re, which bears the investment risk for the machines.

One of the challenges for corporate management is readily apparent in this example. Controlling must prepare and support the examination of financing partnerships. The associated financing conditions must be secured as well. Aspects of subscription models that create further challenges for corporate management include the shorter notice period, the changed cash flow profile and the continuous analysis of customer data. The shorter notice period and the resulting revenue volatility require constant churn analysis, as well as forecasts of terminations based on usage profiles and other customer data. In addition, the customer structure must be checked regularly to prevent the build-up of cluster risk in a particular industry. The company must also apply modern forecasting, analytics and machine learning methods in order to anticipate the changed cash flow profile. To that end controlling must be available with its expertise regarding all aspects of company data. This expertise is also important when analysing customer data to achieve continuous improvement. Controlling must therefore provide analyses to support the transformation of the business model, and at the same time develop analyses for the day-to-day business under the new business model.

Figure 1: Characteristics of subscription models



The “servitization” megatrend poses new challenges for controlling

The evolution away from a product offering to a service offering has far-reaching consequences for companies and their business models. It is with good reason that servitization is also referred to as business model innovation. Controlling, too, will face new challenges due to this megatrend. But what will they be?

Customers, especially in the age of digitisation and the emergence of new technologies, seek individual, holistic service offerings. Supplying a pure product is no longer sufficient, and transitioning away from such an approach requires a rethink in the manufacturing industry to maintain competitiveness, let alone to strengthen it.

As a result, changes are occurring in the value proposition of manufacturing companies, i.e. their services offering for the customer is increasingly becoming a central component. The focus going forward will no longer be on the actual product, rather on the goal of supporting the customer in their core processes (DHL Trend Research, 2018, p. 4).

Servitization, which is defined as “the unfolding trend that more and more suppliers are transforming themselves from pure product manufacturers into service providers” (Braun, 2016, p. 1), describes a “change from conventional individual service offerings to complex service packages” (Wachs et al., 2019, p. 3). A well-known and often-cited example of servitization is Rolls Royce with its Power-by-the-Hour offering, with which the engine manufacturer made the leap from being a pure manufacturer to becoming a service provider. The manufacturer therefore does not sell its engines, rather its customers pay hourly fees for the respective use of the engine (Neely, 2008).

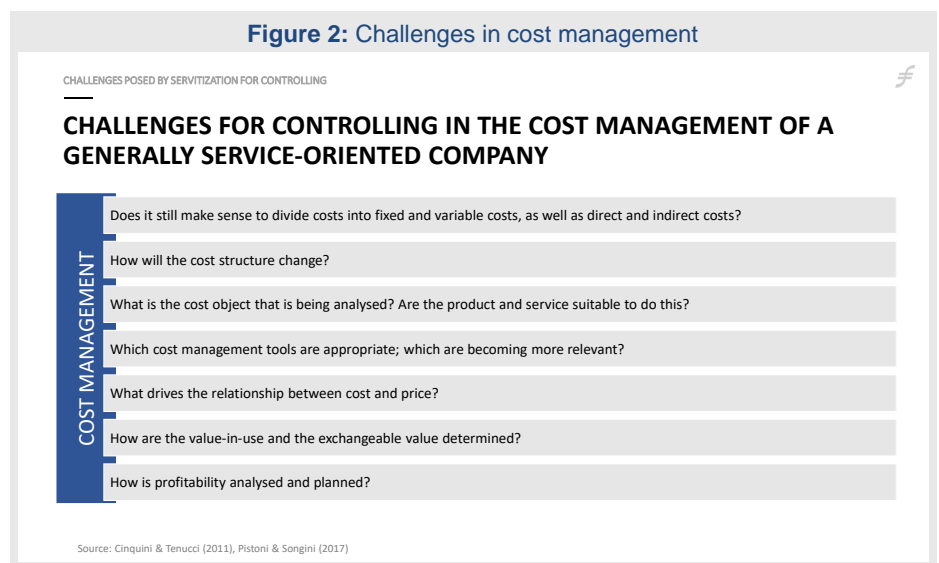
The company’s **production process** is thereby impacted because products and services are combined into a consolidated offering. As a result, traditional tools from industrial controlling are applied together with tools from service controlling. This includes, for example, that additions must be made – as in the case of **product costing**. In this context it would make sense to add a supplement that reflects an experience-based approach: process costing. As the combination of products and services creates new business models, the controller must become acquainted with new requirements in terms of profitability calculations (Krees, 2019, p. 110 based on Steven / Grandjean, 2017, p. 487).

In 2011, the authors Cinquini and Tenucci created an extensive research agenda on the subject of management accounting in services. Their work included an elaboration of open questions

for **cost management** and **management control** in the context of service companies. These questions represent future challenges for the controlling of manufacturing companies that will undergo the servitization process. **Cost management** is confronted with the following new challenges (see Fig. 2): *Does it still make sense to divide costs into fixed and variable costs, as well as direct and indirect costs? How will the cost structure change? What is the cost object that is being analysed? Are the product and service suitable to do this? Which cost accounting tools are appropriate, which are becoming more relevant? What drives the relationship between cost and price? How are the value-in-use and the exchangeable value measured? Do profitability analysis and marginal cost analysis still make sense?* (Cinquini & Tenucci, 2011, p. 11). With regard to **planning processes**, controlling will face the following challenges: *Is it possible to forecast the amount of service being sold, and does it still make sense to use budgets? How will long-term investments be evaluated in such a context? How will performance be measured within a company? Is it possible to measure the value contribution that customers make through co-creation?* (Cinquini & Tenucci, 2011, p. 11).

It is therefore clear that controlling in particular will have to contend with increased complexity and uncertainty (Krees, 2019, p. 110 based on Steven / Grandjean, 2017, p. 487).

Figure 2: Challenges in cost management



How a business model transformation affected a software developer's IT | Impulses for IT controlling from DATEV's digital transformation

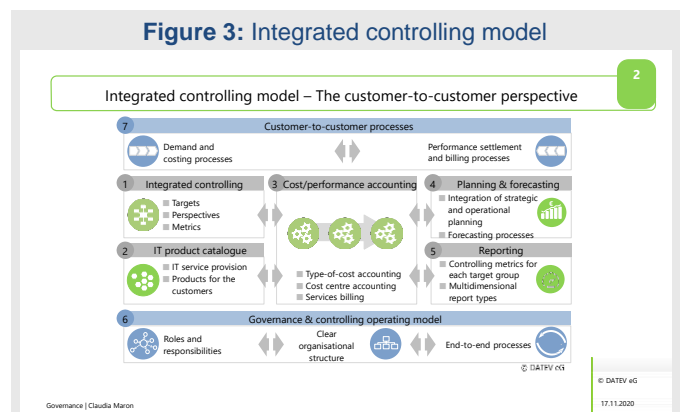
Companies traditionally purchase software, install it on their own servers and databases, and operate the programme themselves. Software from the cloud allows customers to use software solutions based on a subscription model. The implications for software providers are usually not only a transformation of the business model, but also an increasing need for the services of the IT function. DATEV provides an example of how to control IT amid such a transformation.

Technical and statutory changes require a stronger digitisation of business processes – at both companies and their tax advisors. DATEV supports them by providing software and cloud-based solutions that foster the consistent use of this digital transformation (see [DATEV-Rechenzentrum - das "Herz" der Genossenschaft](#)) (English: DATEV Data Centre – the “Heart” of the Company). A transformation that triggers such a change in the business model also impacts IT. The DATEV cloud in the DATEV data centre makes it possible to outsource software and IT for needs-based use (cloud sourcing), to enable networked productivity between tax consultants and companies with online solutions (cloud applications), and to complement these activities with automatic data backup or audit-proof archiving (cloud services). The foundation of the technical migration to the cloud infrastructure is a platform-as-a-service infrastructure (PaaS) based on Cloud Foundry. The resulting technical changes also lead to an increased need for greater transparency and traceability in order to meet the requirements for the operational management of IT.

In the past, IT was traditionally controlled functionally via full cost accounting. While this approach provided a 100% breakdown of costs, it hindered transparency and made it impossible to measure individual services. This transparency had to be created in order to plan and evaluate the influence of quantities and prices on the products and solutions offered. For this purpose, IT services were structured into IT products; levels of responsibility were separated and a profit and loss accounting was introduced based on the resulting structure. The goal in this regard was to manage IT like a factory. The first step was therefore to anchor the “Manage IT like a Factory” management principle. The second step was to establish an integrated management model. This made it possible in the third step to gain transparency about the IT function's services and their associated costs. In the fourth step, an internal IT product catalogue, including transfer pricing, was developed using this transparency.

For the first step, i.e. the anchoring of the management principle, it was important to create a common understanding of IT as an internal service provider, whose services are requested by internal customers. In the second step, building on this, the requirements for an integrated management model were analysed and a target state was defined (see Fig. 3). The focus of this target state going forward is on cost and performance accounting, through which transparency is to be achieved. The

cornerstone of operational management is a multi-level management income statement that differentiates between service centres and cost centres. The former are responsible for both revenues and costs, with the aim of increasing productivity. The services rendered in this regard are therefore billed on the basis of quantities and prices. A cost centre logic was chosen for the IT support functions, which are remunerated with a mark-up on overhead expenses. This model shows, first, how successfully IT works with its customers in the business. It also creates a basis to manage IT product costs in a differentiated manner.



The fourth step, the development of the product catalogue, was built on this. IT products were defined as services that an internal customer can order. If the software development department, for example, develops a new cloud solution, it can order services from IT. The product that is then offered is supported by stock lists, which are divided into service elements, which in turn are backed within IT internally with quantities and prices. These service elements usually consist of the deployment of personnel and the costs for the IT infrastructure, such as the network, server capacity or data storage. The quantities and prices resulting from the use of these resources for the service elements are used only for internal IT cost controlling, however, with a value-based price being charged to the internal customers. As long as an IT product is still used in software development, IT bears the associated costs.

By transforming IT (controlling), DATEV was able to obtain greater transparency about its IT costs and thus adapt its planning and controlling processes in IT to the business model transformation.

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Internationaler Controller Verein eV
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