



WHITEPAPER / STRATEGIC MANAGEMENT IN BANKING

Strategic positioning and measurement of corporate goals with Balanced Scorecard

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A. Strategic positioning in dynamic markets

■ 1. Origins of market dynamics

Digitalisation and globalisation are certainly two of the main drivers of the financial services industry since the beginning of the 21st century. The vulnerability of these major trends was demonstrated by the financial crisis with its global disruption of capital flows as well as by the subsequent sovereign debt crisis. The effects of this can be seen even in the recent past, when looking at the ECB's policies in managing EURO currency stability and managing the supply of liquidity to the markets in the context of refinancing European government budgets. A similar trend can be observed in the technologisation of the financial business. While the use of innovative technologies such as various forms of artificial intelligence, cloud technology or distributed ledger technologies (DLT) promise high efficiency gains, they are also starting points for the vulnerability of the financial system; this concerns data security in the event of cyber attacks, the volatility of unsecured crypto assets up to total loss and the more difficult fight against fraud and money laundering – especially in unregulated market segments.

In order to optimally design and further develop one's own business model and market positioning, it is of particular importance to recognise the origins of possible influences at an early stage and to permanently reflect on them. The basis of scientific industry structure analysis, which was mainly developed in the 20th century, is still widely used today.² The five essential market forces in this context – customers, suppliers, competitors, substitutes and new entrants – are no longer sufficient for the analysis of dynamic market developments and trends, as is also the case with the events in the financial sector outlined at the beginning. The partly cross-industry delivery of financial services value chains requires the involvement of all parties of interest, the stakeholders. The banking industry is changing due to the increased importance of unregulated or only partially regulated market participants such as FinTechs, BigTechs and other marketplace or platform operators within the framework of digital ecosystems. Therefore, influencing factors that regulate (e.g., MaRisk, PSD2, LKSG) or technologically determine (e.g., BAIT) or enable (e.g., DLT) these supply chains as well as socio-economic and -ecological developments (e.g., ESG regulations) must be considered.³

² Cf. Porter (1980).

³ MaRisk – Minimum Requirements for Risk Management (BA); PSD2 (Payment Service Directive) – 2nd EU Payment Services Directive 2015/2366; LKSG – Supply Chain Sourcing Obligations Act (from 1.1.23) BAIT – Banking Supervisory Requirements for IT

Partly in the Business Model Canvas approach and even more in the PESTEL or also known as STEEPLE analysis, these determinants are taken up.⁴ Important macro- and microeconomic factors of the banking industry are included. Strategic positioning – for example in the capital market business or in international payments – also requires the analysis of global market conditions; it is also necessary to reflect on the emergence of new economic revenue models; examples of this are user-related repayment models in investment financing, which are made possible by the Banking of Things. Of equally fundamental importance are both the general capital market environment and the anticipation of capital requirements through the various Basel Accords. Depending on their internationality, systemic relevance and corporate structure, these factors have different consequences for the emergence of dynamic changes in the corresponding sub-segment of the banking industry.

At least as important for the early detection of emerging changes in the market is the analysis and assessment of innovations. Today's most successful companies are those that have been able to continuously increase their revenues through innovation by realising ideas that changed customer expectations, the competitive environment or profitability factors in the financial services industry.

The focus is on a realistic forecast of the expected market dynamics that can be triggered by innovations and could thus call one's own strategic positioning into question. Knowing the current performance characteristics of the competition of a financial service – such as the price or the product or service design – is crucial. Evolutionary innovations are product or service improvements in an existing performance dimension that lead to the acquisition of profitable customers from the competition.⁵ In contrast, innovations are considered revolutionary when market-leading products "oversaturate" the performance requirements of the lower market segments. New entrants can then establish themselves in this market with inferior, less expensive products or services – and then possibly approach higher market segments with a structural cost advantage. In the banking industry, this has been particularly evident in retail brokerage in recent years and more

recently in crypto-token trading. The success of so-called neo-banks such as N26 or Revolut is also due to this. While classic retail banks serve their customers through an extensive branch network or service stations, high-quality advisory staff and almost complete in-house production of the product portfolio, the new market participants focus on the 'digital-only' clientele, whose financial needs are met through hybrid delivery models together with partners.

Innovations are of a particularly disruptive nature if they create new markets due to a changed competitive dimension, i.e., if they can win over previous non-customers of this product or service. For example, the topic of sustainability in wealth planning has gained in importance, especially among private clients who were not previously invested in the capital market. Last but not least, the German government has also raised awareness of the issue of sustainability among broader sections of the population through the publication of the German Sustainable Finance Strategy⁶. Competitors strategically positioned at an early stage in the environment of ethical investment products for private customers are now, after successful scaling in the retail segment, also in the process of bringing these products back to the corporate market, which is dominated more by the competitive dimension of return-performance, which will mean a further disruption – of by then existing markets. The development of the anonymised cryptocurrency business has a similar influence. The competitive factor of anonymity has created a new market for so-called virtual asset service providers (VASPs⁷). Supranational as well as national requirements, such as in the EU through the MiCA⁸ developed by 2022 or in Germany through the authorisation requirement for crypto custody business⁹ in force since 2020 and the

⁴ Cf. Osterwalder/Pigneur (2010); PESTEL: Model for macroeconomic environment analysis of the influencing factors: Political, Economic, Sociocultural, Technological, Ecological, Legal.

⁵ Cf. Christensen/Raynor (2003).

⁶ Federal Ministry of Finance/Federal Ministry for the Environment, Nature Conservation and Nuclear Safety/Federal Ministry for Economic Affairs and Energy (2021).

⁷ VASP: Virtual Asset Service Provider.

⁸ MiCA: Markets in Crypto-Assets; EU Directive on the Regulation of Crypto Assets, Issuers of Crypto Assets and Providers of Crypto Services / as at 30 June 2022.

⁹ § Section 1 (1a) sentence 2 no. 6 of the German Banking Act (Kreditwesengesetz - KWG) defines crypto custody as the safekeeping, administration and securing of crypto assets or private cryptographic keys used to hold, store and transfer crypto assets for others.

Act on the Introduction of Electronic Securities (eWpG), which came into force in 2021, form a regulatory framework. It is foreseeable that in the medium term, market participants originally focused on new tokenised business models will also expand their initial crypto market services to other asset forms.

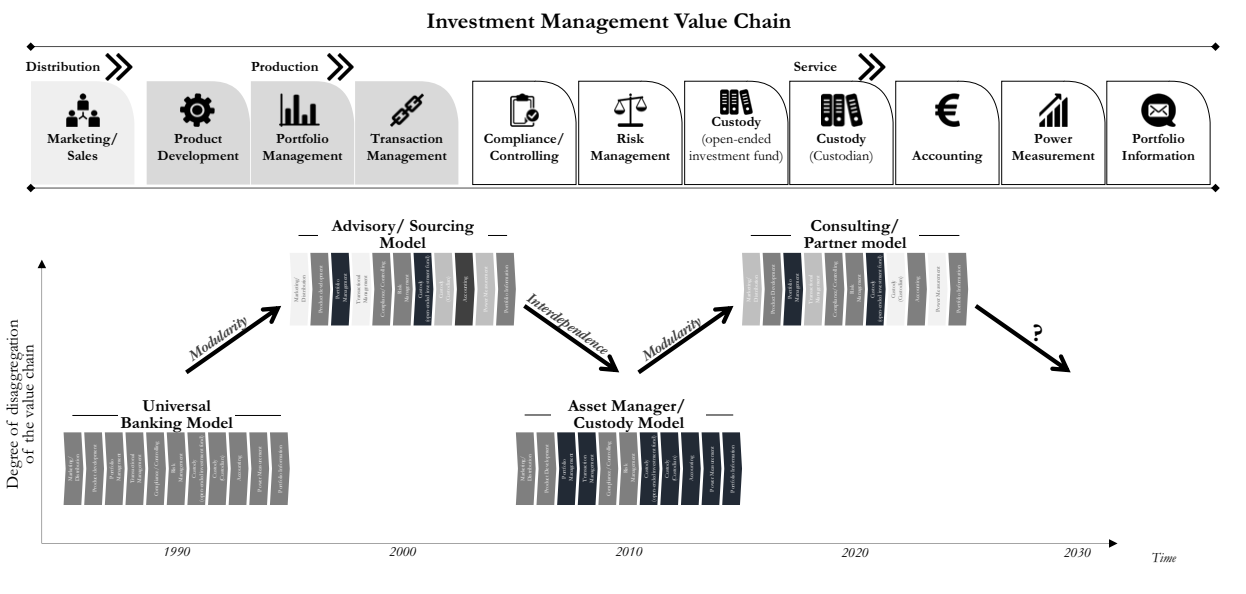
However, the economic success of individual competitors depends on another factor for market dynamics. And it is precisely this factor that needs to be considered in strategic positioning. As described, the correct assessment of the current and future competitive dimensions against which one's own value proposition must be measured is of crucial importance. In this context, the ability of a credit institution to adapt its own depth of value creation to the volatility of the speed of change is decisive for its competitiveness. Companies that recognise the overachievement of a competitive dimension at an early stage can adapt their own business positioning in time. This creates permanently cyclical processes of aggregation and disaggregation of value chains. This can be seen in the financial services market especially in the securities business, where market making, brokerage, custody business as well as clearing and settlement were successively aggregated by individual market participants, while others focused as specialists. The same process can also be observed in other business areas. In the credit business, credit platforms for the

takeover of back-office functions, secondary markets for the takeover of entire portfolios to relieve banks of capital and the well-known bad debt platforms for the takeover of non-performing loans have gradually emerged. This phenomenon can also be observed in the asset management business, where the original universal bank model evolved into an advisory/sourcing business model and then again into the combination of asset management and securities custody specialists within a group.

Reconfiguring the company's value chain and integrating the "right" interfaces is the key to successfully coping with the changing competitive environment. Thinking in terms of core competencies is a recipe for disaster. Mastering new skills is crucial for long-term success. Therefore, the principle applies: move towards the business areas where tomorrow's revenues are to be generated. Companies whose services become a "one-size-fits-all" commodity often ignore the reciprocal process of specialisation that takes place simultaneously with standardisation, either one level down in subsystems or next door in adjacent processes. They miss the opportunity to move to where the money is in the future and are put under pressure – or even disappear from the market altogether – when other companies take advantage of the growth enabled by specialization.¹⁰

Figure 1

Aggregation and disaggregation of value chains



¹⁰ Own representation.

■ 2. Changes in the market

Flexibility in one's own strategic business positioning is always closely linked to one's own vertical integration – also in the banking industry. The market dynamics can be seen both within individual sub-sectors, as can be observed in the recent past especially in payments, and along the delivery of individual business architecture components, as can be observed especially in the infrastructure sector regarding cloud services as well as in the area of data and information services. The banking industry has long been working in various forms of ecosystems.¹¹

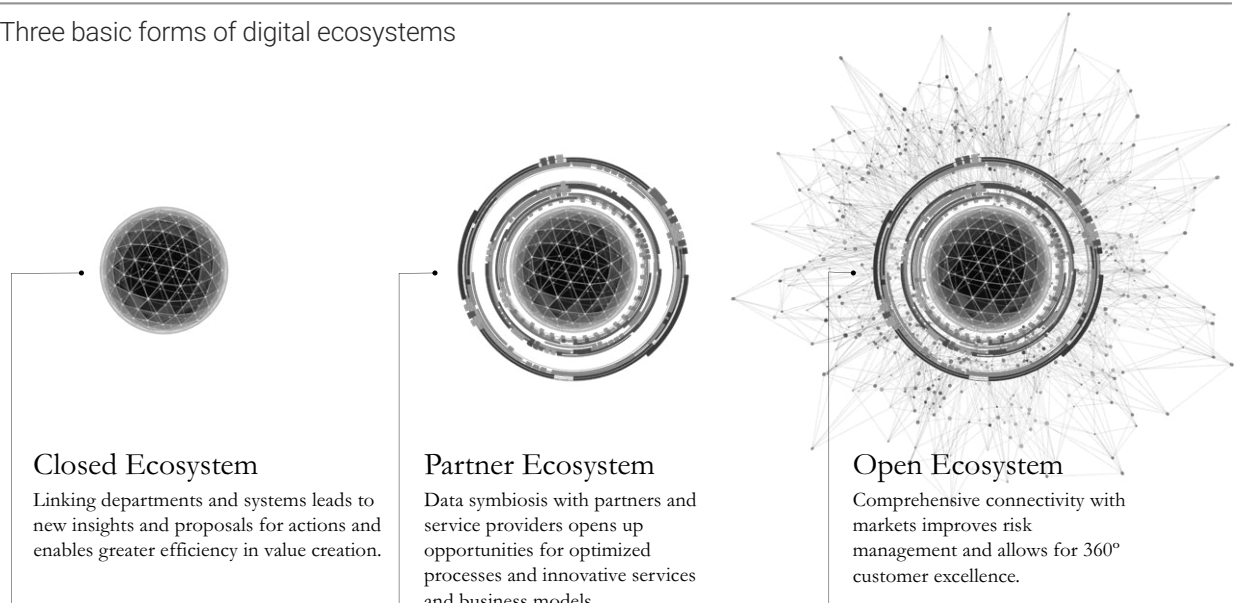
Digitalisation and the success of BigTechs and Fin-Techs have shaped the transformation of the financial industry in recent years. The singular linking of departments and systems in closed ecosystems of individual market participants has now become the minimum standard. Cooperation across company boundaries is even more common - and not only along value chains on the basis of outsourcing agreements within the framework of partner ecosystems; the synergetic connection of market participants in open ecosystems is increasingly being sought in order to be able to offer one's own service to the broadest possible demand.

This cooperation exceeds the original services in the sense of Open Banking; it encompasses all other financial service needs of the customers, then you name it Open Finance approaches or even far beyond that in the integration into industrial processes, functions of public administration or in the retail sector call it Open Business solutions.

A wide variety of business positioning is being pursued. For example, service-oriented industrialisers are in the market as so-called software-as-a-service providers that supply other market participants with a back-office architecture for their banking business, but do not have their own banking licence or offer their own banking products or other assets. In addition to service providers such as Mambu, FIS, the Swedish Intergiro.3d or MangoPay in Europe, Marqeta in the United States also belongs to this group. The case of the British Challenger Bank Starling¹² shows how strategic positioning decisions can change at short notice in this environment. After four years of trying to obtain an Irish banking licence for EU passporting of its back-office services, including for the German market, it changed its strategy in 2022 in order to appear in the future only as a white-label software-as-a-service provider in the EU – analogous to the providers mentioned above.

Figure 2

Three basic forms of digital ecosystems



¹¹ Own illustration based on "Data ecosystems with NTT DATA" <https://de.nttdata.com/data-enabled-ecosystems> (2022).

¹² Cf. Kleinman (2022).

A. STRATEGIC POSITIONING IN DYNAMIC MARKETS

Service providers or partner companies that operate with their own licence and assets in the sense of a banking-as-a-service hub can be observed both in the US with Goldman Sachs as a 'back-office supplier' for AppleCard or Amazon loans and in Europe with Solaris or ClearBank. The back-office offerings are aimed in particular at FinTechs, neo-banks, payment initiation and information service providers, crypto exchanges and crowdfunding platforms.

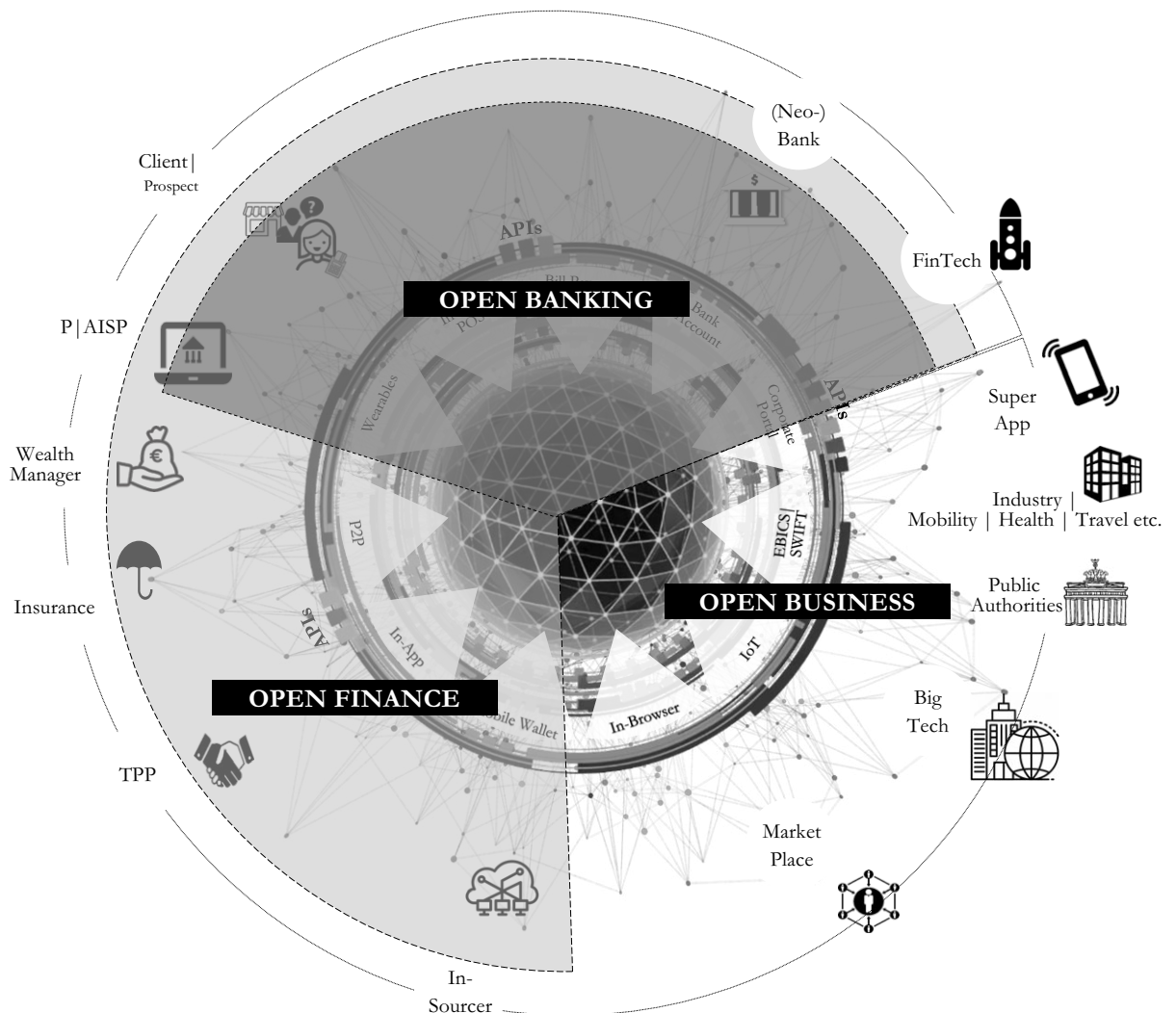
On the other hand, there are the more customer- or product-oriented marketplaces. Their strategic orientation differs in the use of their own banking licence and the sale of their own products. The pure

platform operators, such as Alibaba, WeChat, Grab and Uber, make unlicensed banking services available to third-party developers via open APIs or also trade under licence, such as via the BBVA App Market. Other strategies are pursued by pure marketplace sellers such as Zinspilot, Cash26, Lime or Zalando, which sell their products and services under their own brand as well as white-labelled there.

Finally, the generalists of digital ecosystems must be taken into account. In the sense of a collaborator, they combine several APIs from financial service providers into a single API. For example, the English

Figure 3

Delimitation of digital ecosystems¹³



¹³ Own representation.

A. STRATEGIC POSITIONING IN DYNAMIC MARKETS

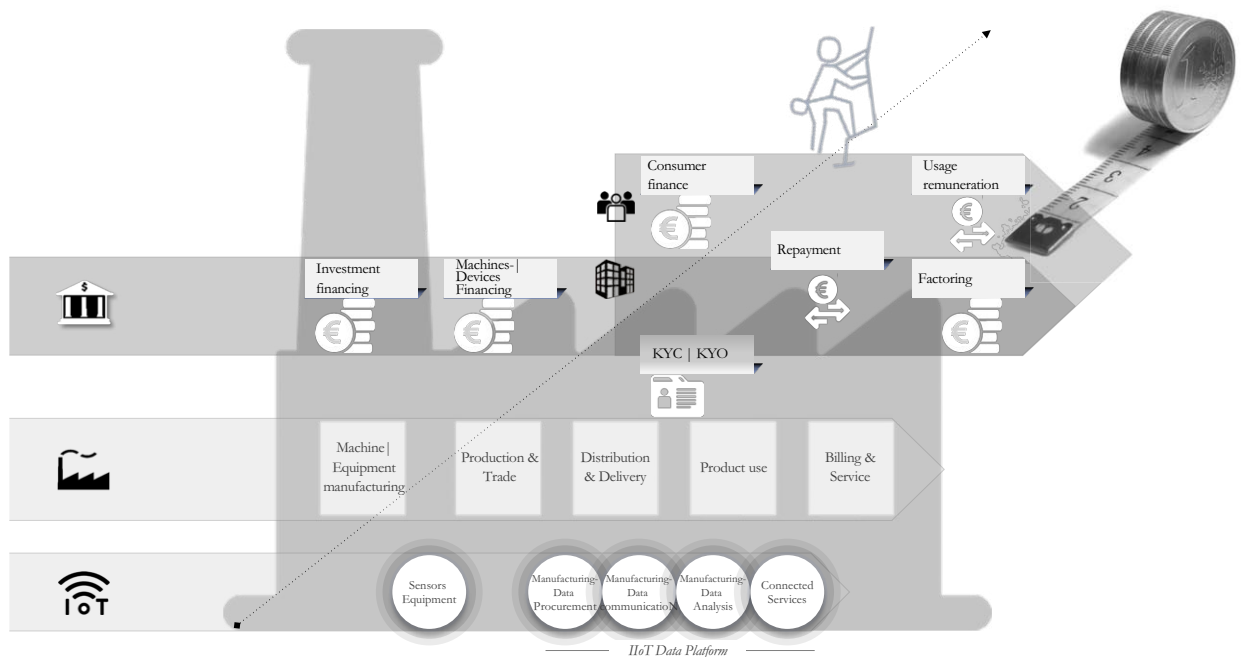
Token.io, which has been equipped with a BaFin AISP/PISP¹⁴ licence since 2021, the American Fin-Tech Plaid as an intermediary between bank accounts and financial apps, or Plaid, MINT and the Swedish Tink, which was acquired by VISA in 2021, act in this way. So-called banking-as-a-platform (BaaP) providers, which focus on the combination of complementary products and services, pursue a different generalist approach than aggregators. This strategic approach is pursued by N26, C24-Bank, PayPal and KlarnaKosma.

While the aforementioned ecosystems are predominantly characterised by the synergies of customer channel use, product or service access and service processing, the market environment for the banking industry is only just emerging due to technological advances in sensor technology, communication infrastructures in 5G or higher networks as the Internet of Things.¹⁵

The interweaving of industrial, IoT¹⁶-specific and banking value creation generates strategic positioning options for the future Banking of Things. This opens up growth opportunities in both the corporate and private customer business in payments as well as in the financing business. Automatic spare parts orders, user-based production and investment loan repayments or parametric insurance in food logistics, where an interruption in the cold chain automatically triggers the due compensation payment, are just a few examples of so-called 'trusted blended payments' or 'embedded finance' offers. Corresponding use cases named "Pay As/How You Use" or "Pay As You Earn" can be detected in particular in sectors such as trade, leasing, the automotive industry, the insurance industry, but also at traditional credit institutions. Such solutions have already been introduced to the market by companies such as Commerzbank, Revolut, Siemens Financial Services or by offers such as Sharenow, Amazon Go or Mercedes pay.¹⁷

Figure 4

Banking of Things – Value Creation



¹⁴ AISP - Account Information Service Provider PISP - Payment Initiation Service Provider

¹⁵ Own representation

¹⁶ IoT – Internet of Things

¹⁷ Cf. die bank – Brügger/Baust (07/2020), p.55-57; cf. 'Geldinstitute, 01/2021 – Brügger/Baust (01/2021)

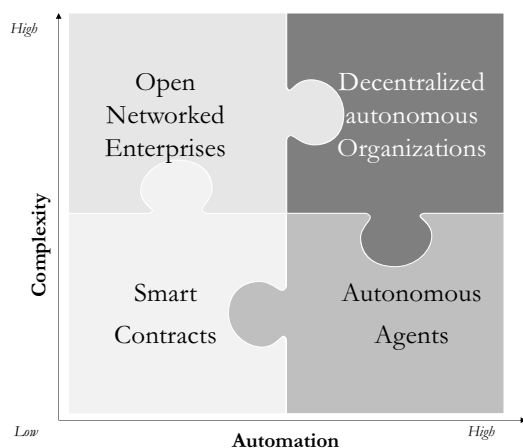
With these examples of different forms of ecosystems in the banking industry it becomes apparent that the market has long since ceased to be dominated by traditional universal banks or specialised credit institutions in many sub-sectors. Particularly in payments, only partially regulated market participants shape the market environment, depending on the value-added step and the means of payment or payment schemes. In addition to FinTechs and Big-Techs, completely unregulated private equity and private debt competitors are also crucial for the development of supply and demand, especially in corporate finance.

Looking into the future, the increased use of distributed ledger technologies will also shape the competitive environment of completely different interconnected or autonomous market participants. Decentralised innovation and value creation models must be considered in this context.¹⁸

These models differ in the degree of automation in terms of human involvement and functional complexity. In particular, the construct of smart contracts, i.e., intelligent automated contracts, has found its way into the financial sector through the success of cryptocurrencies. If such smart contracts are linked with each other several times, so-called open networked enterprises (ONEs) are created. If the degree of automation of smart contracts is increased to a certain level of maturity using artificial intelligence methods, decisive software is created without human intervention, so-called autonomous agents, which are equipped with the ability to learn and adapt. Combining the latter two constructs, distributed autonomous enterprises emerge. In the crypto world, these have come to be known as 'Decentralised Autonomous Organisations' (DAOs), which are gaining prominence as we move towards Web 3.0 and the various Metaverse platforms. These parts of the – albeit exclusively virtual – business space also require strategic attention for financial market participants. How dynamic changes can occur there, in contrast to traditional business arrangements, is obvious.¹⁹

Figure 5

Decentralised innovation and value creation models



¹⁸ Own illustration based on Tapscott D./Tapscott A. (2016), p. 164.

¹⁹ Tapscott D. / Tapscott A. (2016).

■ 3. Risk-bearing business models in volatile markets

We have become makers of our fate when we have ceased to pose as its prophets.²⁰

Sir Karl Raimund Popper, 1902–1994

The philosopher Popper's understanding of the predictive power of market developments was already forward-looking in the middle of the 20th century: If we stop trying to predict the future, we might even be able to manage it. Or better still, use it. And not a moment too soon. In today's market, there are few precedents left, and predictions are hard to make. The turbulence that characterises almost every industry has made the art of investing a shot in the dark. This makes it even more important to identify the drivers of future scenarios and thus to anticipate the most likely future states – rather than predicting a single one (see Figure 6).²¹

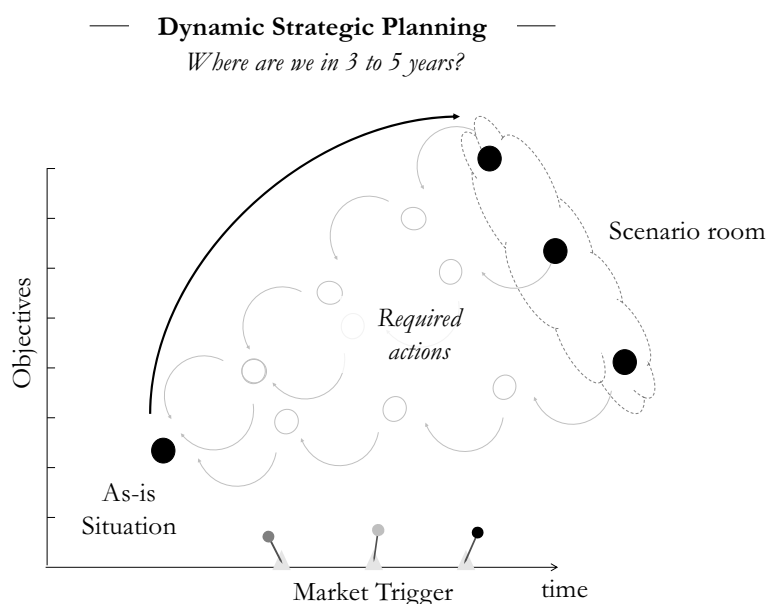
The development of a scenario-specific optimal strategy and the comparison of the individual strategy components enable financial service providers to implement only the necessary activities of a

strategy option as soon as corresponding market-influencing events occur, such as the ECB interest rate turnaround or regulatory decisions by the EU, EBA, ESMA or BaFin.

The importance of the dynamics of change in the market and its environment for the strategic positioning of companies in the financial services industry and the associated vulnerability of business models has also grown in the supervisory context. Thus, quantitative analyses of business models are an integral part of the supervisory review and evaluation process (SREP²²) of the ECB and national supervisory authorities. Robustness is reviewed both in the short term with regard to risk-bearing capacity and in the medium term with regard to the sustainability of acceptable expected returns over a period of 12 months to 3 years. Together with the information on risk propensity via so-called key risk indicators, an overall SREP score is determined, which also takes into account the business model risk score. Depending on its quality, it can lead to additional capital requirements for an institution. This topic is also taken up again in the 7th MaRisk amendment and is a fixed component in banking audits in accordance with §44 KWG.

Figure 6

Anticipation of future scenarios



²⁰ Cf. Popper (1945), taken from the preface of the original English version.

²¹ Own illustration based on Raynor (2007).

²² SREP: Supervisory Review and Evaluation Process

A. STRATEGIC POSITIONING IN DYNAMIC MARKETS

Most recent strategy frameworks such as the Business Model Navigator address these interrelationships for competitive positioning based on individual business model components. In addition to looking at the actual service offering (WHAT), its target group (WHO) or the necessary way of providing the service (HOW), the associated results model (WHY) in particular is also placed in the overall context.²³

Through the specific design of these four components and the combined change of these components, most market participants can be classified into different business model types, so-called patterns or pattern combinations.

For example, PayPal's positioning is mainly characterised by the specific choice of delivery and revenue model. On the one hand, the company applies the so-called "cash machine concept". Here, customers pay in advance for products and services sold to them before a company can cover the associated costs. This leads to increased liquidity, which can be used to pay off debt or to finance investments in other areas.

On the other hand, PayPal also uses the approach known as "layer player". This offers SMEs easy access via an online form to obtain credit and collect commissions from lenders. A layer player is a specialised company that limits itself to providing one value-

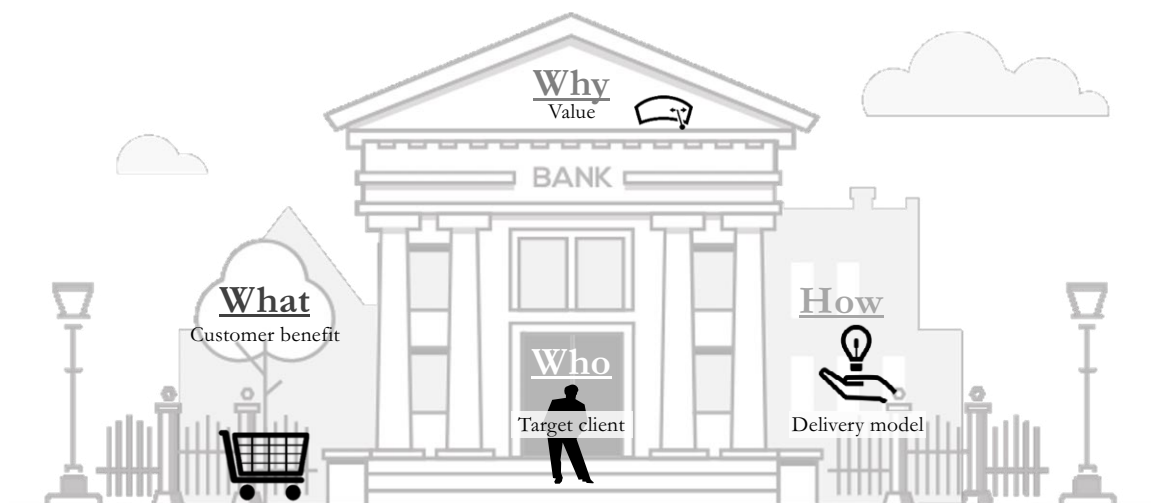
added step for different value chains. This step is typically offered in a variety of independent markets and industries. The company benefits from economies of scale and often produces more efficiently. In addition, the available specialised knowledge can lead to higher process quality. The same model is also pursued by creditshelf as a platform-based credit intermediary for medium-sized companies.

A business model variant that is particularly popular with neobanks such as Revolut but also in the social media environment, which is characterised not only by a special delivery and revenue model but also by the actual customer benefit, is called 'hidden revenue'. The logic that the user is responsible for the company's revenue is abandoned. Instead, the main source of revenue results from third parties who cross-finance the free or low-priced offer. A very common case of this model is funding through advertising, where customers attracted are of value to the advertisers funding the offer. This concept facilitates the idea of "separation between revenues and customers", as also pursued by Google (Alphabet), Facebook (Meta) or Spotify.

How much the future success of a business model depends on the flexibility and correct assessment of the expected market environment is shown not only by the success stories of these examples.

Figure 7

Anticipation of future scenarios²⁴



²³ Cf. Gassmann/Frankenberger/Choudury (2020).

²⁴ Own illustration based on Gassmann/Frankenberger/Choudury (2020), p. 9.

B. Strategic management of transformational and operational goals using a Balanced Scorecard

1. Management of corporate goals in modern organisational forms

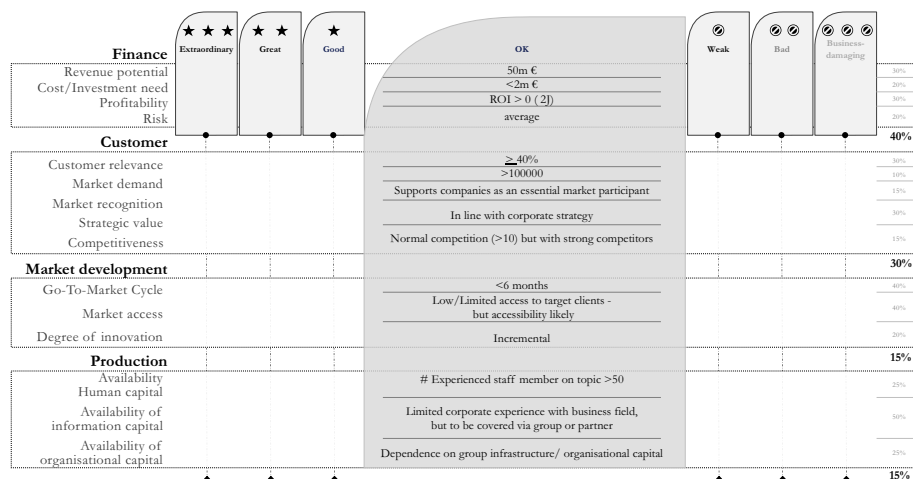
In many cases, the flexibilisation in the strategic management of business models also includes the organisational manifestation of principles of agile management. The transfer of the agile organisational model of the Swedish music streaming service Spotify is just one prime example, which has already been adopted by some financial service providers such as the ING Group or Commerzbank.²⁵ Additionally, methods from other industries, such as the frequently transferred

OKR²⁶ governance from Google, are applied. While the organisational Spotify models based on tribes, squads, chapters and guilds have predominantly led to a merging of business and IT areas in 'change-the-bank', agile management or development methods lead to a blurring of the boundaries between operational business activities and transformation activities.

Many of today's management models are based on a Balanced Scorecard approach. However, this approach is now used not only for operational management but also for deciding on transformation activities or investment projects (see Figure 8).^{27/28}

Figure 8

Example BSC-based assessment of new business potentials



²⁵ Cf. Gerster/Dremel/Brenner/Kelker (2020), pp. 84-103.

²⁶ OKR: Objectives and Key Results - Operational management system introduced early at Google and seen as a key driver of its successful growth.

²⁷ Cf. Kaplan/Norton (1992); Kaplan/Norton (1996).

²⁸ Own representation.

B. STRATEGIC MANAGEMENT OF TRANSFORMATIONAL AND OPERATIONAL GOALS USING A BALANCED SCORECARD

These management mechanisms, derived from the original Balanced Scorecard approach, consider intangible assets such as customers, employees, but also suppliers or partner ecosystems in addition to purely financial, historical key figures, as opposed to the Du Pont scheme, for example.²⁹ Such value-based approaches are also the focus of venture capital investments in the banking industry when evaluating FinTechs. In modern management approaches, ecological success factors, social metrics and results in corporate governance are also included in the consideration of off-balance sheet assets and corporate goals. Thus, in addition to economic goals, value-based management of credit institutions results in a sustainable consideration of overall corporate success.³⁰

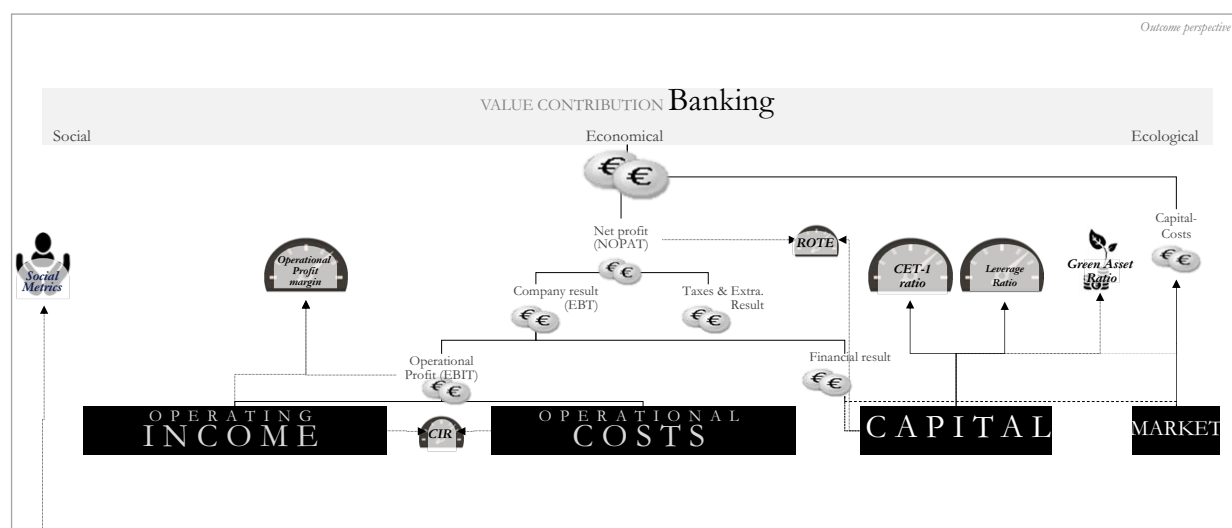
The inclusion of other stakeholders in the management of corporate success in digital ecosystems, both on the demand side and on the supply side, in the sense of a so-called multi-stakeholder view, has led – not only, but especially in the financial services industry – to the renaming of the levels of the Balanced Scorecard. The terms reflect the broader

perspective; today, for example, the four scorecard areas can be found as outcome, market, process and enabler perspectives.

Depending on their intended use, also between specific business areas of the financial industry the individual BSC perspectives are only transferable to a limited extent. In the economic results analysis, the classic key figures such as Nopat, Ebit, return on equity or core capital ratio and leverage ratio are the commonly used standard.³² However, while net inflows, assets under management or assets under administration are significant variables for asset managers, payment service providers are more interested in transaction figures and volumes. Function-related BSCs, such as for marketing or the data and information unit of a financial service provider, are assessed on completely different metrics. There, access, reach or speed and availability are of more interest. For the management of these indicators, it is of overriding importance not only to control the indicators themselves, but also to anticipate all influencing variables in the environment and to limit possible negative effects in advance.

Figure 9

Example sustainable BSC results perspective bank³¹



²⁹ The Du Pont scheme or Du Pont system of ratios (in the original: DuPont System of Financial Control) is considered the oldest system of ratios in the world. The system of corporate key figures for balance sheet analysis and corporate management, which is oriented towards monetary values – in particular the return on investment (ROI) – was developed as early as 1919 by the American chemical company DuPont.

³⁰ Cf. Boulton/Libert/Samek (2000), p. 29; Kaplan/McMillan (2020).

³¹ Own illustration based on NTT DATA Value Impact Analyzer.

³² NOPAT – Net Operating Profit after Taxes
EBIT – Earnings Before Interest and Taxes

B. STRATEGIC MANAGEMENT OF TRANSFORMATIONAL AND OPERATIONAL GOALS USING A BALANCED SCORECARD

■ 2. Influences on the measurement of corporate goals

These influencing factors must be examined in more detail in the following. It is necessary to carry out an analysis at each Balanced Scorecard level. In our example, this is outlined based on the processes in the securities trading business (Figure 10 – Example: Influencing factors in the securities business).³³

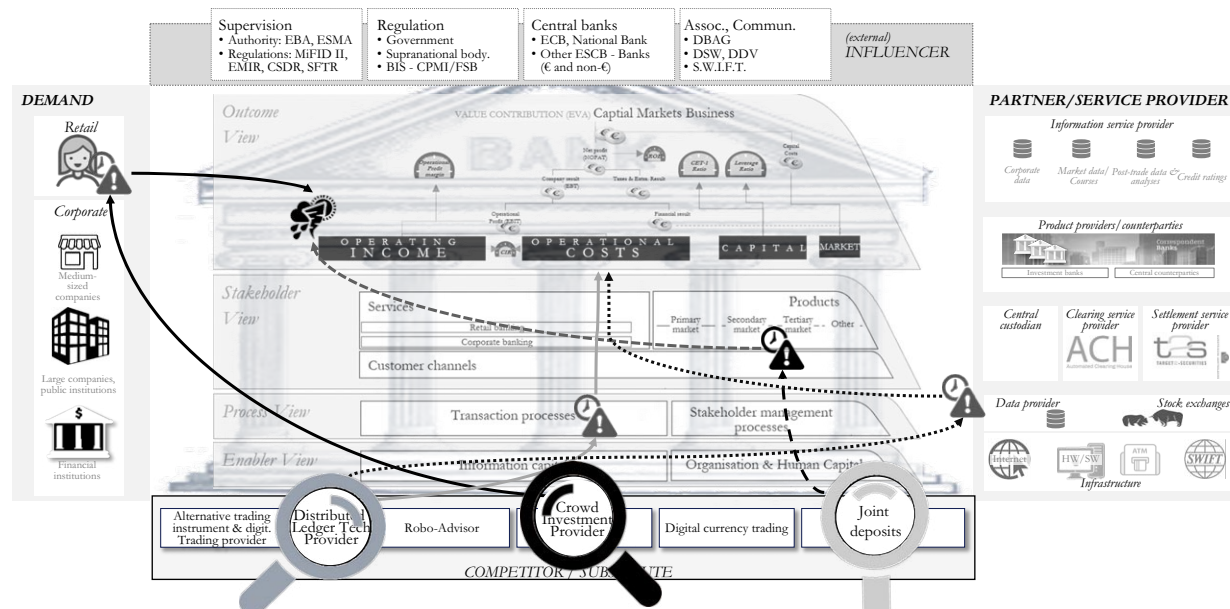
As an example, one can recognise the interdependencies of the effects of possible competitive business models and services (in our example through robo-advisors or crowd-investment providers) or the change in value generation through new business areas (in the example through the trading of cryptocurrencies or joint deposits). Likewise, technological changes are the basis for the entry of new market participants (in the example: distributed ledger – infrastructure – providers).

The outcome perspective is primarily influenced by regulatory requirements. From an economic perspective, the capital requirements via MiCAR, the Capital Adequacy Regulation, the Capital Requirements Directive and their newer ratios such as the common equity Tier ratios, leverage ratio or the liquidity coverage ratio are determining target factors. Both on-balance sheet and off-balance sheet items are considered in relation to the risk-bearing capacity of a financial institution. As already introduced, however, environmental requirements are also increasingly to be considered, for example, via the EU taxonomy, CSRD or also for climate-related financial risks via BCBS 530.³⁴

The demand side – and thus the interface to the market perspective of a Balanced Scorecard – is determined by different influencing variables depending on the business area. While in the capital market business, execution channels, quotation, underlying, or investment approach are important

Figure 10

Example: Influencing factors in the securities business



³³ Own representation.

³⁴ MiCAR – Markets in Crypto Assets Regulation: European regulation for the regulation of crypto asset markets; EU Taxonomy for Sustainable Activities: Classification system for economic activities that are classified as sustainable according to scientific criteria; CSRD – Corporate Sustainability Reporting Directive; BCBS 530: Principles for the effective management and supervision of climate-related financial risks.

B. STRATEGIC MANAGEMENT OF TRANSFORMATIONAL AND OPERATIONAL GOALS USING A BALANCED SCORECARD

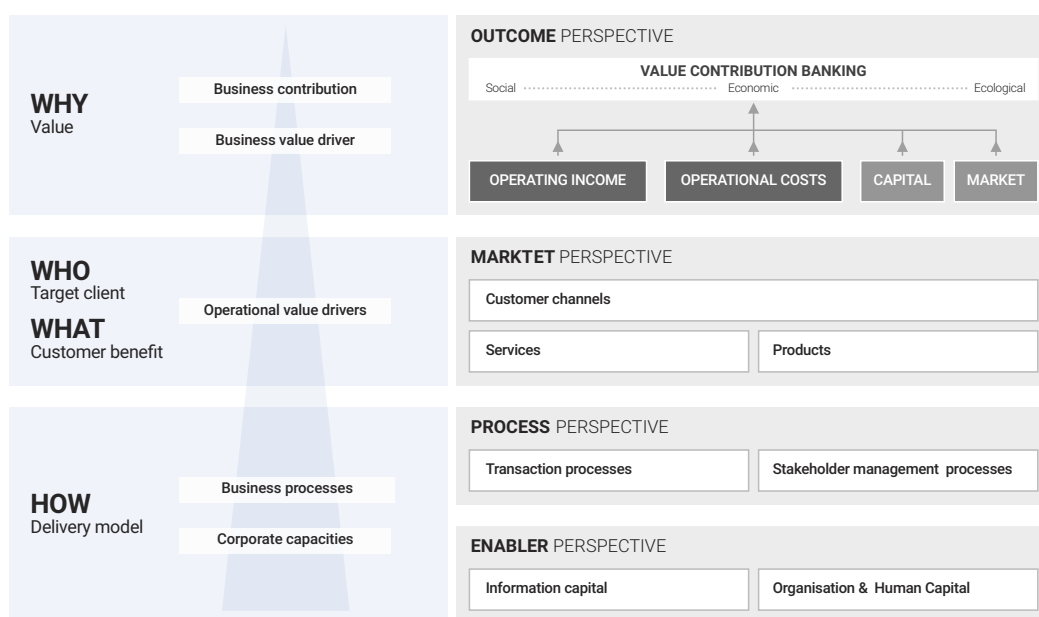
for individual transactions, when managing the market side in payments the currency area, the degree of standardisation and the execution speed specifications are more. The management of the market side, on the other hand, is completely different when it comes to functional considerations, such as in the business with data and information. There, it is the frequency of use, data taxonomy or confidentiality requirements that influence control parameters of the market perspective.

In addition to these direct variables influencing services and products of a financial service provider, direct and indirect access channels must also be considered when managing the market perspective. In the case of indirect customer interfaces, business area-specific differences must again be taken into account. While interaction via payment initiation and account information service providers is of particular importance in account management and payments, independent investment advisors, sales partners in the wealth management and asset management business and for automotive finance institu-

tions, mobility service providers have to be considered. The customer channels used in this context – which are now predominantly digital – to create an optimal customer experience are an equally important control variable – also in relation to the pricing policy of a company. For the process and enabler perspectives, the management of a company's own vertical integration regarding the use of external services, application and infrastructure components, but also information and personnel, are of high priority. In this context, the changes in the regulatory framework, such as those regarding outsourcing regulations, for example in EBA guidelines³⁵, MaRisk³⁶ and BAIT³⁷ and ZAIT³⁸, must be considered by financial institutions and payment service providers alike. These not only influence the targeted cycle times or workload management at the process level but are also determinants for OPEX/CAPEX decisions and their management with the support of a Balanced Scorecard. This makes it possible to continuously review and, if necessary, adjust desired characteristics of the business model components and their target achievement in terms of the strategic positioning decision taken.³⁹

Figure 11

Business model components & BSC



³⁵ EBA/GL/2019/02: Guidelines on internal governance arrangements, including sound risk management, for credit institutions, payment institutions and electronic money institutions when outsourcing functions, in particular with regard to the outsourcing of critical or essential functions.

³⁶ Minimum prudential requirements for risk management.

³⁷ Prudential requirements for IT.

³⁸ Payment services regulatory requirements for IT.

³⁹ Own representation.

B. STRATEGIC MANAGEMENT OF TRANSFORMATIONAL AND OPERATIONAL GOALS USING A BALANCED SCORECARD

■ 3. Value-based measurement of corporate goals – a dynamic BSC management model

The volatility of the market environment in the credit industry and the complexity of the interdependencies in the value creation of financial services require a dynamic management approach. In order to anticipate changes in value influences on business areas or entire business models, a value-oriented Balanced

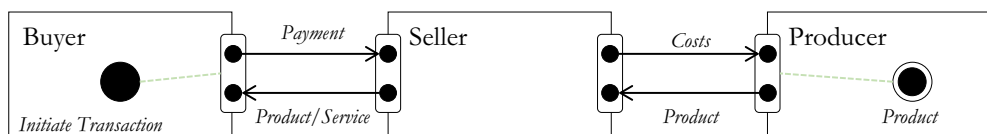
Scorecard management model (Value Impact Analyzer – VIA for short) is outlined below, which addresses the central question:

How do market challenges affect the value creation of a financial institution?

A value-flow oriented analysis makes it possible to simulate the microeconomic effects of the collaborative network economy (see Figure 12).⁴⁰

Figure 12

Model delineation of the value network



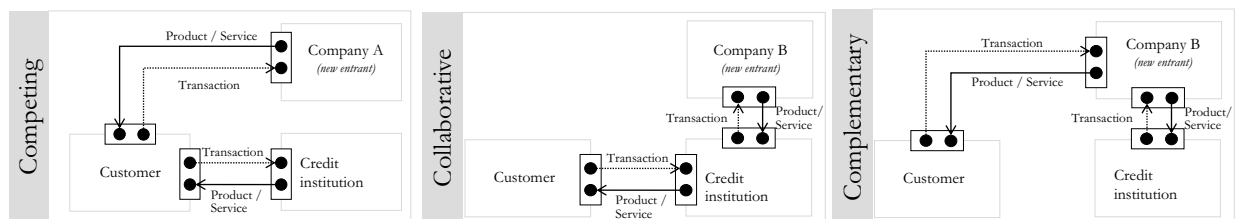
In this process, a company is analysed by considering its environment. The starting point is a comprehensive model of the financial service provider to be managed or the sub-business area to be managed.

A distinction is made between internal perspectives on the functions within the financial services provider and external perspectives that frame the business, such as customers, regulators, partners and other stakeholders. Each internal and external perspective consists of functional structures called entities, e.g., remittance processes, data collections or product types. These entities are defined by the instances of the corresponding metrics (attributes), e.g., processing times, volume, number or price sensitivity. All

instances of metrics together define the state of the financial service provider in the enterprise model. The key element of the VIA is the definition of dependencies between the individual metrics. Each attribute theoretically has a weighted dependency on every other metric, describing how a change in one attribute A affects another attribute B. Based on this dependency network and the instantiated attributes, it is possible to analyse the impact of the occurrence of a market impulse in the company's value creation structure. In this way, it is possible to anticipate the change – especially in digital ecosystems of the credit industry – caused by new market participants and to simulate one's own strategic decision-making options about competitive or collaborative dealings (see Figure 13).

Figure 13

Simulation variants of new market participants of digital ecosystems⁴¹



⁴⁰ Own representation based on e3-value method developed at the academic institutions Vrije Universiteit Amsterdam (Computer Science department) and University of Twente (Electrical Engineering, Mathematics and Computer Science department); Gordijn/Akkermans (2001).

⁴¹ Own representation.

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For example, it can be anticipated for a specific credit institution that with the market entry of a competing FinTech such as the British online money transfer service provider Wise, the transaction volume for international money transfers in the retail sector will fall by 15 %.

By connecting the business model areas within the Balanced Scorecard and quantifying the correlations between the units, direct and indirect effects become visible – like shock waves running through this network of metrics and converging to a stable ex-post state (see Figure 14).⁴²

Institution-specific characteristics are fundamentally important: How, if at all, is the process cost allocation carried out? Which pricing models are used – which factors are included? Customer contact point-related pricing models and the correlated processing costs

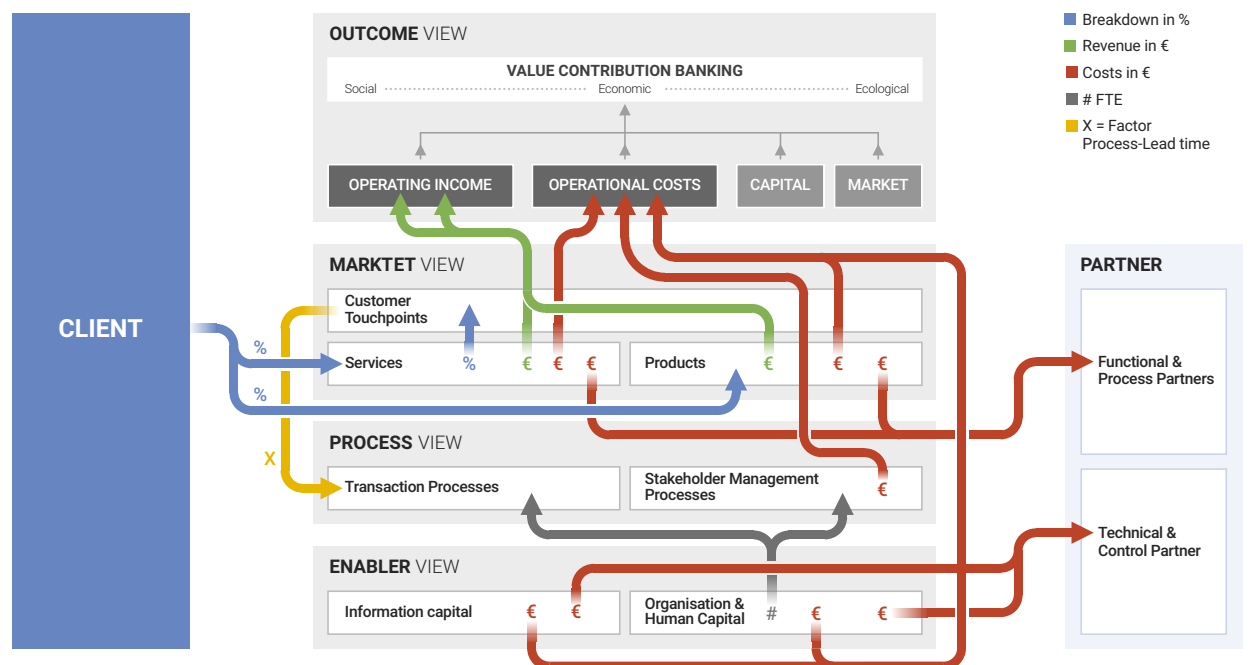
must be considered, as well as the choice between indirect and direct personnel and material cost allocation from front to back office and corporate centre functions.

Structural changes in enterprise models, such as the disappearance or appearance of entities or changes in dependencies, can also be a direct impact. An example would be the shutdown of proprietary transactional applications, which determines a shift of entities in the IT view of the model.

Investment decisions, for example to orchestrate the digital transformation, lead to far-reaching mutually determining changes in many subcomponents of a business model. It is therefore even more important to keep an eye on the interdependencies and to be able to simulate the various temporal priorities in advance and thus anticipate their effects.

Figure 14

Business model-specific BSC dependencies



⁴² Own representation.

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Even more complex effects are to be simulated in OPEX/CAPEX management, changes in the depth of value creation up to outsourcing decisions. Here, it is not only singular changes in the KPIs across all Balanced Scorecard perspectives that need to be analysed, but the correlations between the individual business model components of a credit institution (see Figure 15).⁴³

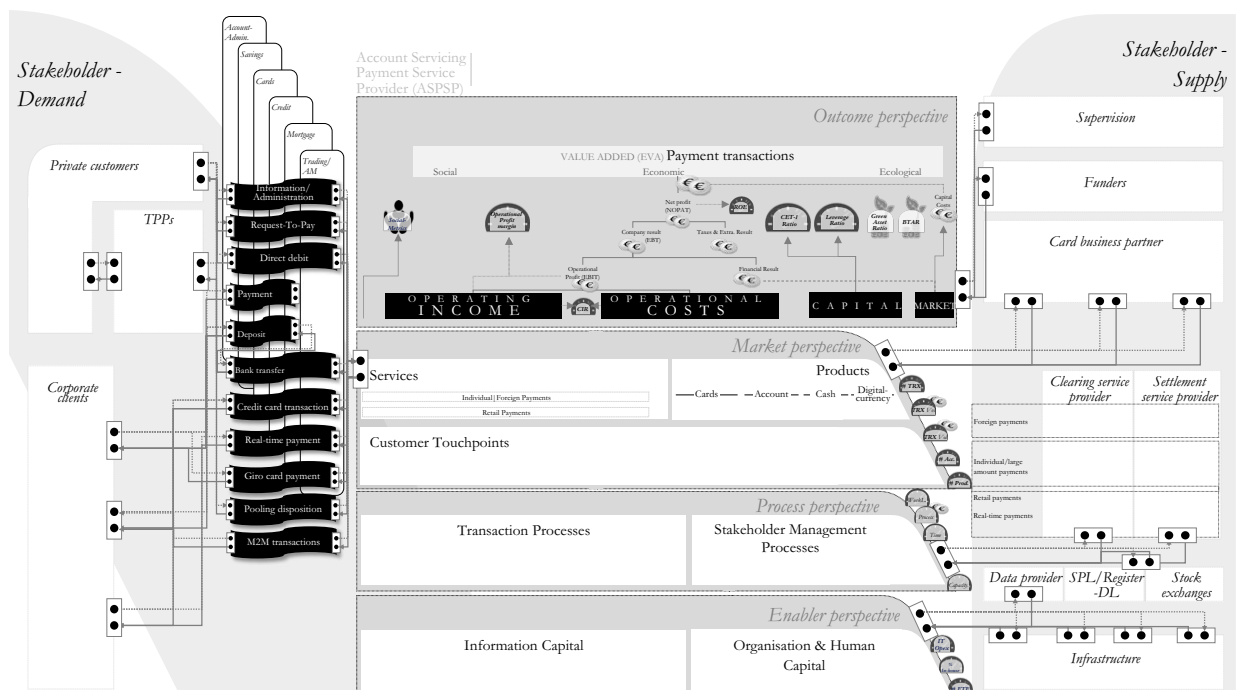
The influence of technological developments such as the use of M2M⁴⁴ communication in payments or financing, the use of distributed ledger technologies in trade settlement, the further development of decentralised finance concepts and the development of

metaverses based on Web 3.0 illustrate the need to expand microeconomic management in the direction of participation in digital ecosystems.

The transformation from Open Banking to Open Finance to Open Business requires cross-industry management of companies in the banking industry. Modern Balanced Scorecard systems take this development into account by simulating both sustainable development and the inherent dynamics of change in the market environment and anticipating the most likely market scenarios. This ensures future-proof management decisions.

Figure 15

Business model-specific BSC dependencies



⁴³ Own representation

⁴⁴ M2M – Machine-to-Machine

Bibliography

- Boulton, R., Libert, B., & Samek, S. M. (2000): Cracking the value code: How successful businesses are creating wealth in the new economy (p. 29). New York, NY: HarperBusiness 2000.
- Brugger, Martin/ Baust, Ralf (2020): Trusted Blended Payments - Making Money with Payments in: die bank, 07/2020, p.55-57.
- Brugger, Martin/ Baust, Ralf (2021): Crisis-proof process innovation for Industry Finance 4.0 in: gj Geldinstitute, 01/2021.
- Federal Ministry of Finance/ Federal Ministry for the Environment, Nature Conservation and Nuclear Safety/ Federal Ministry for Economic Affairs and Energy (2021): German Sustainable Finance Strategy, Berlin, 2021.
- Christensen, Clayton M., and Michael E. Raynor (2003): The Innovator's Solution: Creating and Sustaining Successful Growth. Boston: Harvard Business School Press, 2003.
- Gassmann, O., Frankenberger, K., & Choudury, M. (2020). The Business Model Navigator: The strategies behind the most successful companies (2nd ed.). Upper Saddle River, NJ: FT Press 2020.
- Gerster, D./Dremel, C./Brenner, W./Kelker, P. (2020): How Enterprises Adopt Agile Forms of Organizational Design: A Multiple-Case Study, ACM SIGMIS Database, Volume 5, Issue, February 2020, pp. 84-103, <https://doi.org/10.1145/3380799.3380807>
- Gordijn J., Akkermans H. (2001): E3-value: Design and Evaluation of e-Business Models. In IEEE Intelligent Systems, Vol. 16(4):11-17, 2001.
- Kaplan R., Norton D. (1992): The Balanced Scorecard – Measures that Drive Performance, Harvard Business Review, 70, 1992.
- Kaplan, Robert S., Norton, David P. (1996): The Balanced Scorecard: Translating Strategy into Action, Boston: Harvard Business School Press, 1996.
- Kaplan, Robert S. and McMillan, David (2020): Updating the Balanced Scorecard for Triple Bottom Line Strategies (August 28, 2020). Harvard Business School Accounting & Management Unit Working Paper No. 21-028.
- Kleinman, Mark (2022): Starling pulls Irish bank application as international focus shifts, skynews, <https://news.sky.com/story/starling-pulls-irish-bank-application-as-international-focus-shifts-12654418>, 18 July 2022.
- Osterwalder, Alexander/ Pigneur, Yves (2010): Business Model Generation: A Handbook for Visionaries, Game Changers, and Challengers. Hoboken, New Jersey: John Wiley & Sons, 2010.
- Popper, Karl R. (1945): The Open Society and Its Enemies, Routledge & Keagan Paul, London 1945.
- Porter, Michael E. (1980): Competitive Strategy: Techniques for analysing industries and competitors: with a new introduction. Free Press, New York, 1980.
- Raynor, M. E. (2007). The strategy paradox: Why committing to success leads to failure (and what to do about it). Currency, Doubleday, New York, 2007.
- Tapscott, Don/ Tapscott Alex (2016): Blockchain Revolution: How the Technology behind Bitcoin is changing Money, Business, and the World, Penguin, 2016.

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