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Development of a Performance Measurement Systems for NCA-Sales-Teams

Abstract. *In 2019 at IBM, it was found that there is a strong dependence on a few large banks in bank sales, and the growth targets of the sales division cannot be achieved due to the existing business with these same customers. To counteract this dependency, an NCA-specific sales team for the banking industry was established to support small and medium-sized banks with personal commitment and expertise and to develop them into long-term business partners of IBM. This research focuses on the development of a performance measurement system for NCA-Sales teams. It postulates the hypothesis that more effective and better-suited performance measurement systems can be developed for NCA-Sales of information technology towards financial institutions. Authors use the methodology of expert interviews and Mayrings qualitative content analysis to gain insights into the relevant factors that need to be considered when evaluating the performance of such sales teams. The paper identifies stakeholders, challenges, and goals that should be integrated into a performance measurement system as well as KPIs to measure them. The results are being consolidated into a conceptual sketch for an NCA-sales optimized PMS. The paper distinguishes itself from other research through an approach that gives detailed guidance for the practical implementation of its findings. The research was conducted with professionals in the IT sector; however, all of them were working for the same company, and the data was collected in the short span of one week as it was part of a research. The outcome can be used for further studies on how to effectively measure performance in NCA-Sales teams.*

Keywords: *Performance Measurement Systems, New Client Acquisition, Sales, Banking Sector, Key Performance Indicator.*

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Розробка систем оцінки ефективності команд із залучення-продажу нових клієнтів

Анотація. *У 2019 році в IBM виявили, що в продажах банків існує сильна залежність від кількох великих банків, тому цілі зростання відділу продажів не можуть бути досягнуті через існуючий бізнес з цими клієнтами. Щоб протидіяти цій залежності, була створена спеціальна команда NCA-Sales для банківської галузі, щоб підтримувати малі та середні банки через особисті зобов'язання та знання, а також перетворити їх у довгострокових ділових партнерів IBM. Це дослідження присвячене розробці системи вимірювання продуктивності для команд NCA-Sales. В його основі гіпотеза про те, що для NCA-продажу інформаційних технологій фінансовим установам можна розробити більш ефективні та пристосовані системи вимірювання ефективності. Автори використовують методологію експертних інтерв'ю та якісного контент-аналізу Майрінга, щоб отримати уявлення про відповідні фактори, які необхідно враховувати під час оцінки ефективності таких команд із продажу. У статті визначено зацікавлені сторони, проблеми та цілі, які слід інтегрувати в систему вимірювання ефективності, а також ключові показники ефективності для їх вимірювання. Результатом дослідження є концептуальний ескіз системи оцінки ефективності, оптимізований для NCA-Sales команд. Стаття відрізняється від інших досліджень підходом, який надає детальні вказівки щодо практичної реалізації авторських висновків. Респондентами даного дослідження є професіонали в IT-секторі; проте, всі вони працювали в одній компанії, а дані були зібрані на протязі одного тижня. Результати можуть бути використані для подальших досліджень щодо того, як системно вимірювати ефективність роботи NCA-Sales команд.*

Ключові слова: *системи вимірювання ефективності, залучення нових клієнтів, продажі, банківський сектор, ключовий показник ефективності.*

1 INTRODUCTION

1.1 Problem of the paper

In recent years, the German banking market has faced many challenges. The industry is dominated by negative headlines such as the Cum-Ex deals, the Wirecard accounting scandal, or even the global Corona pandemic (Bender et al. 2020). In addition, some of the established German private banks are struggling to ensure their profitability. For example, COMMERZBANK aimed to reduce its cost-income ratio (CIR) to (CIR) 66% by 2020 (Dohms 2020). However, in the third quarter of 2020, the CIR was 78.3% (Orlopp 2020). This is also reflected in the development of the share prices of the major German banks. For example, both COMMERZBANK and DEUTSCHE BANK were valued at less than 50% of their 5-year highs on the December reporting date (Finanzen.net 2020a; Finanzen.net 2020b)

IT vendors with a strong focus on selling products and services to major banks in the DACH market must view these developments with both a critical and a concerned eye. Lowering the cost side is an effective means of reducing the CIR. In this context, there is a causal relationship with the reduction of the IT budget of many banks.

At IBM, it was found that there is a strong dependence on a few large banks in bank sales. Furthermore, it was determined that the growth targets of the sales division cannot be achieved due to the existing business with these same customers (IBM 2019c, 22)

To counteract this development and dependency, an NCA-specific sales team for the banking industry was established at the company at the beginning of 2019. The goal of this team was to support small and medium-sized banks with personal commitment and expertise and to develop them into long-term business partners of IBM (IBM 2019b, 3).

The question arose as to how the performance of a sales team can be evaluated, which operates in an environment very much driven by personal contact, but which does not yet have any contact with future customers. A pure evaluation based on sales figures, as used in relationship sales at IBM, did not seem to be suitable to make the actual success of the department measurable.

It had to be stated that neither company-internal nor in the relevant literature concrete concepts for performance measurement for NCA sales teams in the banking market could be found.

1.2 Objective of the research

The objective of this research is to develop a performance measurement system for an NCA sales team in the banking market. Based on the analysis of common concepts, a concrete concept will be outlined by concretizing or extending it by NCA-Sales specific topics.

Specifically, the paper addresses the clarification of the following six research questions:

– Which business units need to be included in an NCA-Sales specific PMS?

– Which external stakeholders need to be involved in an NCA-Sales-specific PMS?

– What challenges does an NCA sales team face?

– What are the goals of an NCA sales team?

– What metrics are relevant to a PMS in NCA Sales?

– How can a PMS contribute to the growth and development of an NCA sales team?

By presenting the results in a conceptual outline, the foundation for further research of performance measurement for NCA-Sales teams will be laid.

1.3 Placement in the scientific context and formal hypothesis

Previous research in the field of performance measurement and management systems mainly focuses on the following two research questions (Sandt 2005, 439 f).

– How can information overload be avoided when complementing financial and non-financial metrics?

– How isPMSs used in practice and which types of use have the strongest impact on success?

Current research on PMS lacks concrete recommendations for practical use. Most PMS are kept very abstract, which leads to implementation difficulties in many companies.

This paper follows the understanding of application-oriented science according to Ulrich. Hereby models and procedures are to be developed with the help of the theoretical sciences, which solve problems perceived in practice (Ulrich 1982, 3).

Studying the practical implementation and adaption of theoretical concepts provides experts in different businesses a sense of how they can better execute the recommendations provided in said theoretical frameworks. The importance of the study is displayed by the fact, that researchers argue that a variety of performance measurement systems cannot find wide acceptance in the economy because of poor execution and implementation errors in practice (Gleich 2011, 84).

This paper postulates the hypothesis, that, for NCA-sales of Information Technology towards financial institutions, the plain use of a pre-developed concept such as e.g., the balanced scorecard or the performance pyramid, will result in inefficiencies and better-suited Performance Measurement Systems can be developed by using branch- and company-specific analyses.

The added value of this paperwill be created by researching the specific requirements of a chosen business area and aligning a PMS to these very requirements in a practice-oriented manner.

The paper distinguishes itself from previous research by the rigorous application-oriented form of presenting and adapting known concepts. It also develops a sketch of an optimized PMS for a specific economical sector, B2B sales for Information Technology directed towards financial institutions.

2 LITERATURE REVIEW

2.1 Performance Measurement

In the literature, the terms performance and performance measurement have only very vague and partly different definitions. Neely et al. understands performance management as making the efficiency and effectiveness of actions measurable (Neely et al. 1995, 80). Kleindienst expands this definition to include performance characteristics such as productivity, flexibility, creativity, sustainability, and agility (Kleindienst et al. 2015, 13). Grüning adds that performance measurement measures multidimensional corporate performance, which includes operational and strategic aspects and is characterizable by interdependencies (Grüning 2002, 6). There is frequent reference in the literature to the multidimensionality of performance measurement, but there is little discussion of which other dimensions should be considered in addition to the financial one (Kleindienst 2017, 34). Franco-Santos et al. identified the following five roles of performance measurement in a literature review (Franco-Santos et al. 2007, 795 ff.):

– Performance measurement: quantifying and evaluating performance.

– Strategy control: planning, defining, and implementing strategy.

– Communication: Internal and external communication, benchmarking, compliance.

– Influencing behavior: reward system, relationship building, governance.

– Learning and continuous improvement: feedback, double-loop learning, performance improvement.

Based on these attempts to define performance measurement, a unified understanding of performance measurement will be created in the context of this thesis. This thesis understands performance measurement as the measurement of characteristics that are relevant for entrepreneurial action. In particular, it assumes the roles of performance measurement, strategy control, and communication.

The described characteristics, which are relevant for entrepreneurial action, are reduced in the context of this work to those things, which are important for a successful NCA sales team. In the following, the challenges of NCA sales will also be discussed. These challenges serve as a basis for the development of the performance measurement system and are to be made measurable. The term performance measurement and management system, which is often used in the literature, is used synonymously with the term performance measurement system in this thesis since the meaning of the term performance measurement system has changed over time to a management approach anyway.

2.2 New Client Acquisition (NCA)

In the literature, the definition of the term New-Client-Acquisition is usually omitted for reasons of triviality, but at this point, the term should be clarified for the further course of the work. New client acquisition refers to the process of acquiring a potential client with whom no contact or only very slight contact existed in the

past. In this context, the acquisition is understood to mean the winning of a customer, i.e., the acquisition is completed as soon as the first sale of a product or service has taken place. In practice, the terms NCA and NCA sales team, are to be understood more broadly. An NCA sales team deals with new customers, i.e. those with whom the business has only recently been concluded. However, an NCA-Sales Team not only deals with the pure initial business but develops the newly acquired customers over a longer period before the support is taken over by a classic existing customer team (IBM 2019a, 18).

2.3 Performance measurement systems

2.3.1 Approaches to performance measurement

Five different approaches to the multidimensional measurement of corporate performance using modern performance measurement will be shown below. Lohmann and Braun have provided an overview of other performance measurement systems and assigned the following purposes to them (Lohmann and Braun 2018, 19):

– Identification of causal relationships between performance drivers;
– Strategy implementation;
– Creation of a continuous improvement process;
– Identification of key issues and problem areas;
– Strengthening internal corporate communication.

2.3.2 Tableau de Bord

The Tableau de Bord originally served as a kind of reporting tool that enabled top management to gain a quick and comprehensive overview of the corporate environment. In addition, goals, action variables, and action plans could be systematically defined and tracked (Hoffjan and Endenich 2015, 3). Since the early 1990s, the Tableau de Bord has increasingly been supplemented by a strategic component. This involves formulating impact chains between objectives, action variables, and action plans, and selecting corresponding performance indicators. Both financial and non-financial target components, such as product quality or customer satisfaction, are taken into account (Endenich 2019, 22). Often, the Tableau de Bord is not only created for the entire company but also at the departmental level. On the one hand, ensuring coherence as well as highlighting interdependencies between the effects of different company departments can be seen as a challenge, but it is precisely this that creates opportunities for cross-hierarchical and cross-functional learning effects (Bourguignon et al. 2004, 112). The Tableau de Bord involves a low degree of formalization and can be tailored very flexibly to companies and competitive situations. In addition, its creation is associated with a low level of complexity for the individual departments (Endenich 2019, 22). However, it is important to consider that the Tableau de Bord usually has no link to performance-related compensation. While this is of little relevance to the course of this work, it should be mentioned as a weakness of this approach for the sake of completeness (Bourguignon et al. 2004, 112). The Tableau de Bord presents all relevant information to the viewer at a glance. This function is illustrated by terms used synonymously for the Tableau de Bord, such as "cockpit" or "dashboard" (Ossola-Haring et al. 2016, 109). In this context, the Tableau de Bord contains key figures and indicators that provide information on the status of critical success factors (KPIs), as well as milestones and other measures. Furthermore, it provides information about the business environment so that management can react to changing conditions promptly (Daum 2005, 12). Despite these features, there is no standard concept for building a Tableau de Bord. Since the Tableau de Bord must be adapted for individual business areas, differentiation should be made in the structure between departmentsto be able to meet the specific requirements.

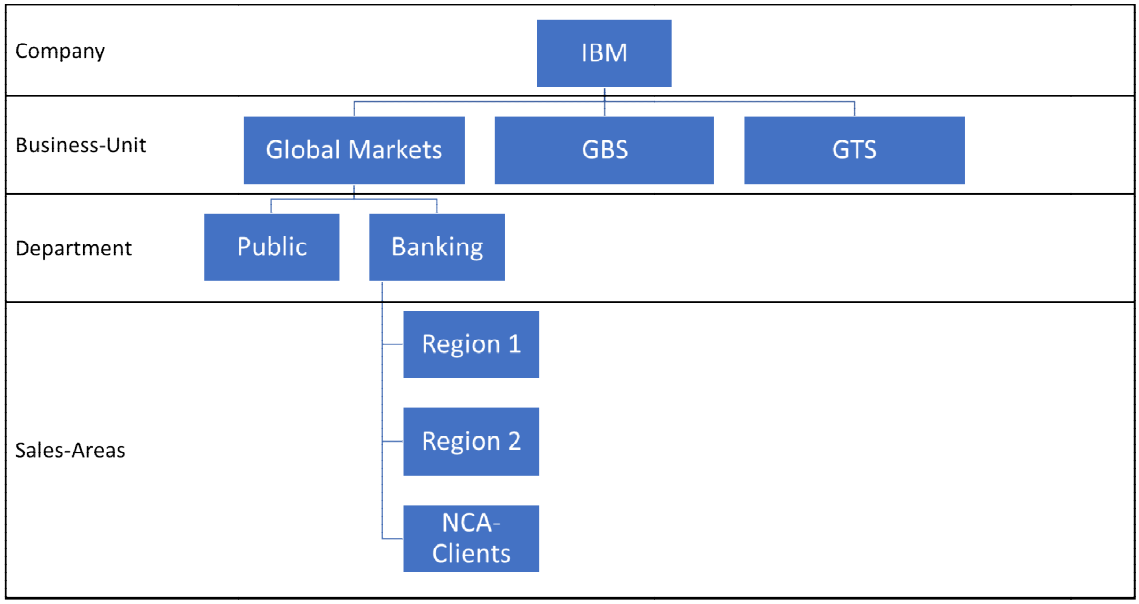

Figure 1. **Nesting principle using IBM as an example**
Source: own elaboration according to (Kleindienst 2017, 54; Epstein and Manzoni 1998, 191).

The implementation is based on the nesting principle. The corporate mission, vision, and corporate values are determined and broken down along the hierarchy levels. On this basis, goals and critical success factors, including measurable key performance indicators, are then derived. To avoid losses in readability and comprehensibility, the Tableau de Bord should be limited to only a few key figures at each hierarchical level (Epstein and Manzoni 1998, 191). The following figure shows the nesting principle in performance measurement using an exemplary structure at the IBM company. The company can be divided into three business units: Sales (Global Markets), Consulting Services (GBS), and Technical Services (GTS).

Despite the promising approach, the Tableau de Bord could hardly establish itself in science or practice outside of France, which can be attributed, among other things, to poor executions in practice with many implementation errors (Gleich 2011, 84).

2.3.3 Performance Pyramid

The Performance Pyramid was developed by Lynch and Cross in the 1990s and derives strategic goals for different performance levels based on the corporate vision (Lynch and Cross 1995, 65). In doing so, the Performance Pyramid is ought to (Gleich 2011, 87):

– Carry management's targets to all areas of the company.

– Provide information on the performance of its levels promptly.

– Include financial and non-monetary metrics.

– Communicate key performance indicators to internal customers.

The concept differentiates between three performance levels, corporate management, middle management, and the operational level, for each of which separate key figures of different dimensions are recommended (Lynch and Cross 1995, 65 ff.).

In the Performance Pyramid, a distinction is made between indicators of internal efficiency and external efficiency (Lynch and Cross 1995, 65). Goals are broken down from the vision using the top-bottom approach. This ensures that the goals at the different levels always contribute to the fulfillment of the corporate vision (Grüning 2002, 37). The metrics to measure these goals can be aggregated bottom-up, so each goal also supports the degree of goal fulfillment of the goal above it (Kleindienst 2017, 56). Strategy implementation and strengthening internal communication can thus be identified as the purpose of the Performance Pyramid (Lohmann and Braun 2018, 19).

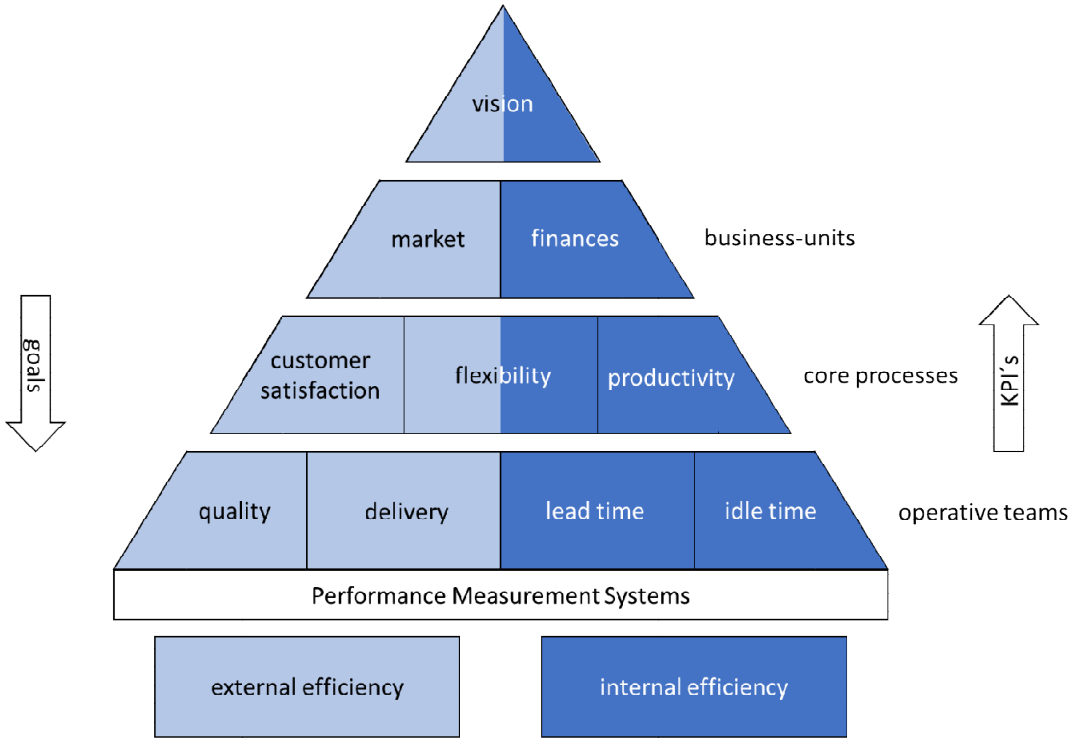

Figure 2. **Performance pyramid**

Source: own elaboration according to(Lynch and Cross 1995, 65).

In practice, the Performance Pyramid model has not been able to establish itself, which can be attributed, among other things, to the fact that the system does not include a mechanism with which relevant key performance indicators can be identified (Tangen 2004, 76). In addition, the approach only takes two stakeholder groups into account, the market (customers) and finance (equity investors). As a result, only a small part of the actual business environment is represented and changes in it can only be poorly anticipated. The combination of this fact with the poor extensibility of the Performance Pyramid means that it is unsuitable as the only performance measurement system (Schreyer 2007, 48 f.). However, the Performance Pyramid implements other

performance measurement requirements very well, especially strategy control as well as communication. According to the author, the Performance Pyramid is to be understood as a framework for PMS and not as a fully developed performance measurement system.

2.3.4 Performance Prism

The Performance Prism, developed in the early 2000s, attempts to compensate for the weaknesses of performance measurement systems that existed until then (Neely et al. 2001, 6). Unlike the Performance Pyramid, it does not focus on just two stakeholder groups, but consists of the following five dimensions that are related to each other (Neely et al. 2002, 160):

– Stakeholder Satisfaction: Who are our key stakeholders and what do they want?

– Stakeholder contributions: What do we want and need in return from our stakeholders?

– Strategies: What strategies do we need to employ to meet stakeholders' needs as well as our own?

– Processes: What processes do we need to implement to operationalize our strategies?

– Capabilities: What capabilities do we need to execute the processes?

Neely et al. put these dimensions in the context in the form of a prism.

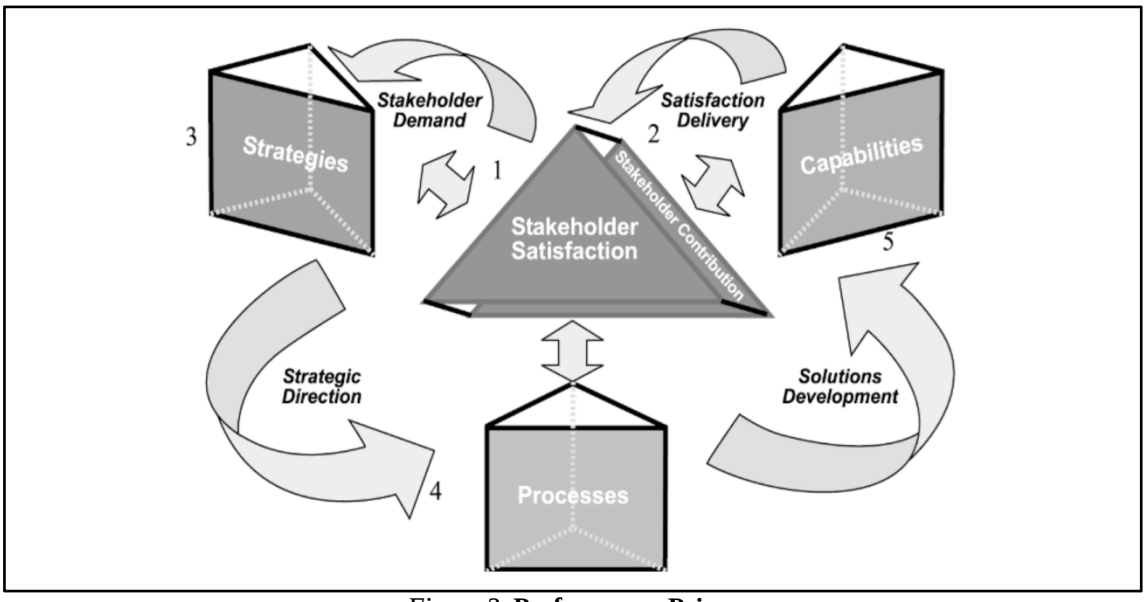

Figure 3. **Performance Prism**

Source: (Neely et al. 2002, 181)

The performance prism places a very strong focus on the stakeholders of the company. Explicitly mentioned are investors, customers, intermediaries, employees, unions, suppliers, regulators, and the public. Neely et al. postulate that the starting point for determining key performance indicators should not be a corporate strategy but the needs of stakeholders (Neely et al. 2002, 161 ff.). Then companies can expect something in return. For example, employees as stakeholders demand a secure job and fair pay. In return, the company wants good employee performance and possibly creativity and loyalty. This principle can also be applied to other stakeholders, such as customers. They might demand the fast delivery of a product of good quality. In return, the company wants to be paid by its customers according to the agreed terms. This dynamic allows a symbiotic relationship to develop between the company and its stakeholders (Neely et al. 2001, 7). Based on the needs of the different stakeholders, strategies are derived to meet them. Thus, the purpose of the performance prism can be described as the identification of key issues and problems (Lohmann and Braun 2018, 19). To solve these key issues, various measures are taken, such as developing a new product or service. The effectiveness and efficiency of these measures are displayed by key performance indicators. A weakness of the Performance Prism is that it does not focus on the actual design of a performance measurement system. Thus, while a Performance Prism provides good insights into the strategic level, it does not address how performance should ultimately be measured. In addition, this approach, like the previously explained ones, does not take into account any existing PMS of a company. The strength of the Performance Prism is that it reviews the strategy before taking action. In addition, the approach takes into account stakeholders who are essential for corporate success, such as employees, but who are often not considered in performance measurement (Tangen 2004, 79).

2.3.5 EFQM Excellence Model

The EFQM Excellence Model was developed by the European Foundation for Quality Management and is related to Total Quality Management (TQM). The EFQM Excellence Model is based on nine criteria and serves as the basis for various awards, such as the Ludwig Erhard Prize for excellent companies (Hummel and Malorny 2015, 2).

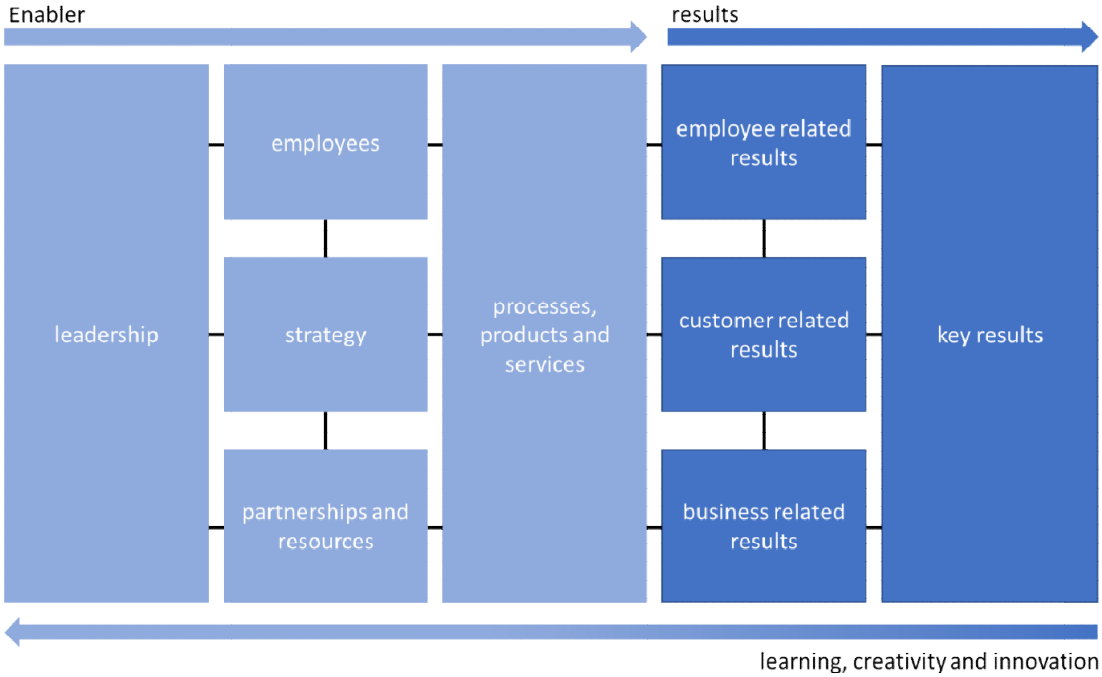

Figure 4. **EFQM Excellence Model**
Source: Own elaboration according to (EFQM 2012).

The figure shows the nine criteria of the EFQM model. These can be divided into five enabler criteria (left side) and four result criteria (right side). All processes and operations in and around a company can be assigned to these criteria. Thus, it forms a universal structure for evaluation and enables comparison with other companies (Moll and Kohler 2013, 47).

Similar to the Performance Pyramid, the EFQM model is more of a framework than a specific measurement tool. It has some weaknesses in the quantifiability of the individual criteria. Furthermore, the literature criticizes the lack of a control and regulation component (Kleindienst 2017, 64). Likewise, the criteria themselves are formulated very imprecisely, which can lead to problems in operationalization (Neely et al. 2000, 1126).

2.3.6 Balanced Scorecard

The Balanced Scorecard (BSC) is by far the most widely used performance measurement system in corporate practice (Kleindienst 2017, 61). It was published in 1992 by Kaplan and Norton and provides a quick and comprehensive view of a company's performance (Kaplan and Norton 1992, 71). They use an analogy between the balanced scorecard and the cockpit of an airplane. They point out that a single metric, such as airspeed, is not enough to make an airplane fly safely. Attention must also be paid to altitude, fuel quantity, and other factors to ensure a safe flight (Kaplan and Norton 1996, 53 ff.). According to this analogy, the BSC is based on different perspectives of observation, which Kaplan and Norton identified as (Kaplan and Norton 1992, 72):

– Financial perspective: How do the providers of capital see us?

– Customer perspective: How do customers see us?

– Process perspective: What do we need to be particularly good at?

– Learning and growth perspective: Can we improve further?

Kaplan and Norton concede that these perspectives are not the only ones suitable for the BSC and are merely intended to serve as a standard (Kaplan and Norton 1992, 71 f.). The perspectives are all related to each other in the model representation and the vision and strategy of the company can be found in the middle (Figure 5).

A weakness of the BSC, similar to the EFQM Excellence Model, is that the content is kept very generic and imprecise (Uskova and Schuster 2020). In addition, Kaplan and Norton assume a causal relationship, which is questioned by Nørreklit. Furthermore, the top-down determination of KPIs is to be criticized and implementation problems are often neglected (Nørreklit 2003, 616 f.) (Nørreklit 2003, p. 616 f.).

However, as already mentioned at the beginning, the BSC is very often used in practice, which according to OTLEY can be explained in particular by the following advantages (Otley 2007, 27 f.):

– The BSC creates an explicit link between the strategy and the key figures needed to measure it.

– Key drivers for future success are to be presented compactly by the BSC.

– Companies need to focus on the most important KPIs, as the BSC suggests a limited number.

– The four standard KPIs take into account the most important stakeholders and can be easily expanded.

Especially the last-mentioned aspect makes the BSC a popular performance measurement tool. Due to the flexibility of the BSC, it can not only be used at the overall company levelbut can also be applied to individual business units or departments. Kühnapfel has created the following BSC, which is dedicated to performance measurement in sales.

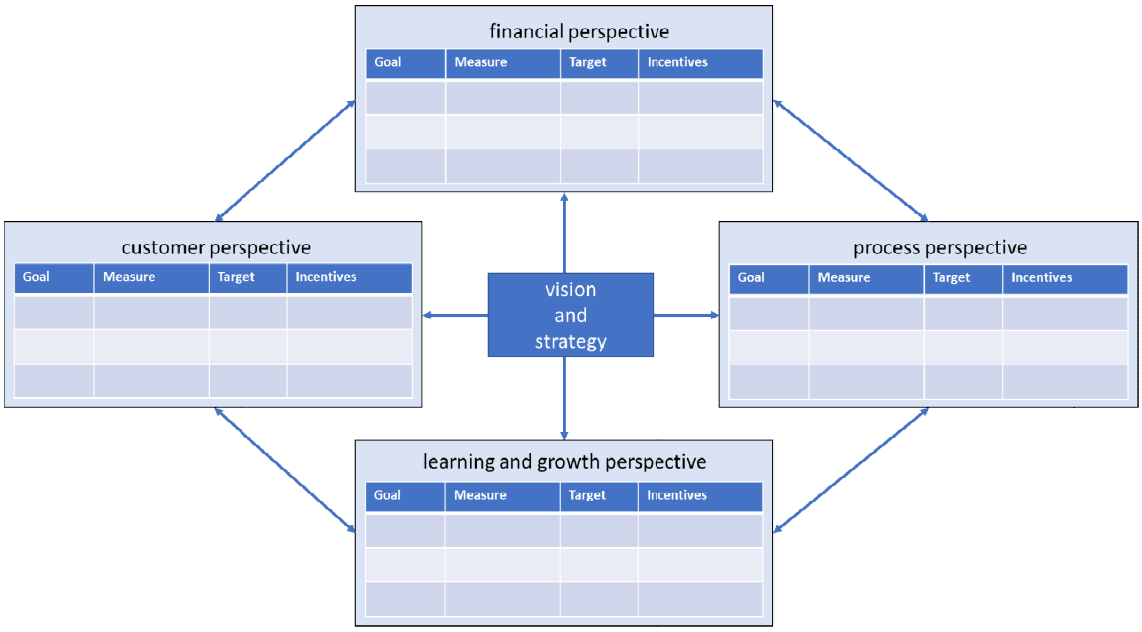

Figure 5. **Basic concept of the Balanced Scorecard**
Source: Own elaboration according to (Kaplan and Norton 1996, 54)

Figure 6. **Dedicated sales balanced scorecard**
Source: (Kühnapfel 2017, 54).

Kühnapfel has defined maximum revenue with a contribution margin-oriented mindset as the vision or ultimate goal. He defines this mindset as a secondary condition for his overriding goal of maximum sales and describes it in terms of rules that should be specified by sales control (Kühnapfel 2017, 54).

To make performance measurable with the presented PMS, concrete key figures are still missing in each of the presented approaches. The following chapter deals with the development of key figures and key figure systems for performance measurement.

2.4 Key Figures in Performance Measurement

As input for any performance measurement system, key performance indicators (KPIs) are needed to measure the most important success factors. These KPIs can be either single metrics, such as the sales of a certain product, or metrics behind which entire systems are hidden. For example, one such KPI is ROI, which is the top KPI of the DuPont system. KPI systems can take on very different forms, but some general requirements for KPI systems can be noted (Küpper et al. 2013, 471 f.):

– Objectivity and freedom from contradictions: a systematic structure should prevent subjective interpretation and contradictions.

– Simplicity and clarity: To enable coordination with key figures, care should be taken to use only a certain number of key figures.

– Information aggregation: The hierarchical structure should enable top management to obtain a good overview of the entire company through aggregated information with a few key figures.

– Multicausal analysis: Hierarchically arranged levels allow a multicausal analysis by splitting key figures into the levels below.

– Indicator function and system openness: To fulfill the indicator function, a certain system openness is required. For example, several key figures from one level can be assigned to a higher level.

– Participation: Top management often does not have sufficient knowledge to develop an indicator system with meaningful influencing variables. It is therefore essential that experts from the individual areas be involved in the creation of a KPI system.

2.5 Architecture of key figure systems

Key figure systems can be differentiated into calculation systems and classification systems.

In calculation systems, a main key figure is divided into different branches, which are then further split up to a defined final level, which often consists of absolute key figures. Calculation systems are built up by definition-logical relations and mathematical transformations. The following operations are used (Gladen 2014, 98):

– Decomposition: numerator and denominator are decomposed into partial quantities of a total quantity.

– Substitution: The numerator or denominator are replaced by other quantities without changing the value of the output quantity.

– Expansion: The numerator and denominator of the ratio are expanded by the same quantity.

Gladen distinguishes between the two architectures according to the type of use as follows:

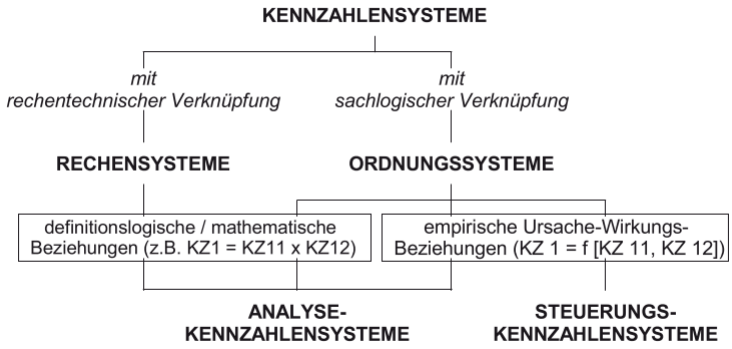

Figure 7. **Key figure systems and their types of use**

Source: (Gladen 2014, 100).

2.6 The Sales Process

Kenning understands sales to mean the sale of products and services, the management of the sales force organization, and the maintenance of relationships with the end customer (Kenning 2020). In Homburg et al. these three aspects can also be identified in the flow of the sales process, as seen in the figure below:

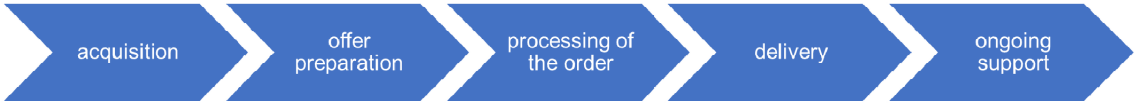

Figure 8. **Sales process**

Source: own elaboration according to (Homburg et al. 2012, 202).

However, Homburg et al. still seethe acquisition as well as offer preparation as an integral part of sales before the actual selling. These steps are particularly important in new customer acquisition, as this is where the greatest difference to existing customer business can be identified. Whereas in existing customer business, a customer relationship already exists, this must first be established before the first deal is concluded in NCA sales. The sales process can therefore be divided into three different phases: The acquisition phase, which takes place before the first customer contact, the offer phase, which takes place from the first customer contact to the conclusion of the contract, and the subsequent support phase. Various underlying challenges can be identified for these phases. In the acquisition phase, for example, it is important to receive feedback from customers. In the offer phase, the products, their quality, and price are relevant. In the support phase, internal process structures, in particular, can be critical to success; for example, a high level of availability of customer consultants is a goal to strive for. The acquisition phase and the offer phase can be summarized under the term prospect management. The support phase can be referred to as customer management. These two areas result in the main processes of sales. In addition, there are usually support processes, such as forecasts or customer value analyses (Kühnapfel 2017, 339)

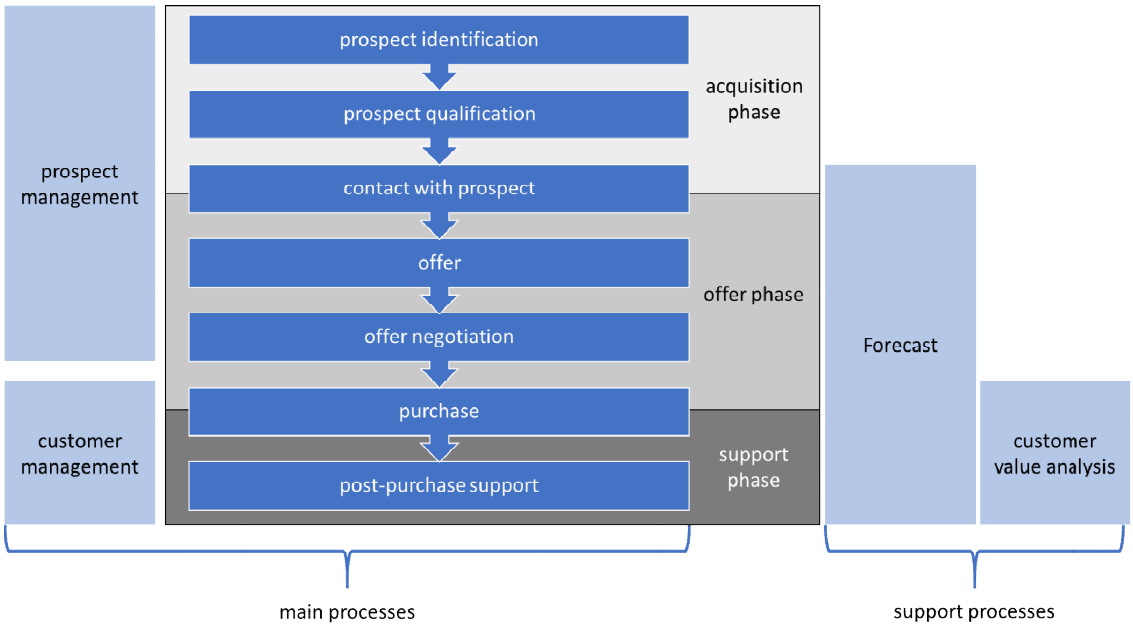

Figure 9. **Reference model of a sales process**
Source: Own elaboration based on (Kühnapfel 2017, 339).

It can be seen that the acquisition phase can be divided into the steps identification, qualification, and at the end of the phase contact of interested parties. The offer phase begins with customer contact, after which an offer is prepared and negotiated. This phase ends with the resolution of a purchase contract and thus introduces the support phase, which deals in particular with the support of the customer after the purchase.

In a similar approach, Kühnapfel attempted to divide sales into specific groups for his sales balanced scorecard and arrived at the following four development areas that are relevant for sales controlling (Kühnapfel 2019a, 12 f.).

– Customers
– Products
– Sales processes
– Sales instances

Based on these development areas, Kühnapfel derived goals, and thus developed key performance indicators for his BSC. Furthermore, he has developed a list of various key performance indicators that can be used for PMS in sales (Kühnapfel 2019b, 9 ff.). However, which of these metrics are relevant for an NCA-Sales optimized PMS and whether further metrics may be needed is not the subject of discussion in the literature sources.

3 RESEARCH METHODOLOGY

3.1 Expert survey

The expert survey or expert interview can be assigned to the generic term "survey" as a data collection method. In surveys, respondents are prompted by verbal or other stimuli to make statements about the survey object (Böhler 2004, 85). Expert interviews usually take the form of face-to-face interviews, which can be conducted either as paper-and-pencil interviews or as CAPI (Computer Assisted Phone Interview) (Kaya 2009, 51). Different survey forms can be arranged on a continuum with the poles "fully structured" on the one hand and "little structured, open" on the other, with

expert interviews, usually being classified near the center. If the goal of the survey is to look at a phenomenon that has not yet been researched very much, less structured and open interview techniques are appropriate (Lamnek 2002, 173).

The success of an expert interview depends strongly on the technical and methodological know-how as well as the communication skills of the researcher. A detailed examination of the relevant literature on the object of research is a necessity to be accepted by the expert as a competent and serious interlocutor. To obtain reliable information that is as undistorted as possible, care must be taken to ensure that the interview situation corresponds as closely as possible to an everyday situation for the expert (Lamnek 2008, 396), (Lamnek 2008, p. 396).

In contrast to other variants of the qualitative interview, the expert interview does not focus on the person being interviewed, but on his or her personal experiences and interpretations about the research topic. The function of the expert is usually linked to a position of responsibility or privileged access to information and thus provides an insight into specialist and background knowledge (Borchardt and Göthlich 2009, 38).

To structure the course of an expert interview, but at the same time allow sufficient flexibility for an open discussion, an interview guideline is used. This serves as an orientation for the interviewer in terms of content so that all questions previously considered important are addressed and comparability of the interview results can be ensured when conducting several expert interviews (Borchardt and Göthlich 2009, 39; Döring and Bortz 2016, 375).

Through an introductory and narrative-generating question, the interview partner is guided toward the question of interest. The structuring of the meaning of the social reality is left to the expert through a neutral and non-directive interview style (Lamnek 2008, 340). The interview partner should not be interrupted in his or her remarks. In addition, the researcher should not make any evaluative comments on what is said. Interest in the expert's remarks can be made clear by verbal utterances (e.g., "Mhm," "Ah, yes," etc.) or nonverbal gestures (e.g., nodding the head or making eye contact) as well as by taking notes of the conversation. However, it cannot be ruled out that certain factors, such as age differences between the researcher and the expert or contextual conditions (e.g., deadline pressure or sympathy of the interview partners), influence the interview (Borchardt and Göthlich 2009, 39).

Meuser and Nagel have elaborated the following factors that can contribute to the failure of an expert interview and should therefore be avoided at all costs (Meuser and Nagel 1991, 449 ff.):

– The researcher's language style is not adapted to the expert.

– The expert does not have the expert knowledge hoped for.

– The expert digresses from answering the guideline questions.

– The expert switches from his expert role to that of a private person.

– The expert uses the interview to advertise his knowledge, but in doing so misses the point of the interview.

3.2 Qualitative Content Analysis

The method of qualitative content analysis according to Mayring is suitable for evaluating the data collected in an expert interview. Figure 18 graphically represents the scheme of this model.

In a first step, it must be determined which research question is to be addressed and then a methodology tailored to this must be selected. In doing so, it must also be addressed which parties are involved in the methodology and which socio-economic background these persons bring with them in each case. In the second step, it is important to describe exactly under which conditions the material was produced, e.g. which persons were involved, what emotional and cognitive backgrounds of action there are, as well as the concrete situation in which the material was produced. After this step, it is necessary to describe in what form the material is available to the author for analysis. The material can usually be in the form of a tape recording and/or in the form of the transcript of such a recording. The next step is to determine the direction of the analysis. Here, the analysis can be carried out about a statement about an object or fact, or, for example, about the emotional state of an object under investigation. In literary studies, texts are also often analyzed in their own right, with the sociocultural background serving as the context. After that, the research question has to be differentiated and divided into different sub-areas to enable a meaningful categorization in the next steps. Following this, appropriate categories are defined to allow for a meaningful organization of the material. After that, units of analysis are defined, e.g. what is the smallest or largest text module that may fall into a category. This is followed by the classification of the material into defined categories. It is important to note that after approximately 30-50% of the material has been categorized, the categories should be re-examined to verify the categories themselves. After the material at hand has been completely categorized, the results must be compiled and interpreted in condensed form. As a final step, it is essential to check the evaluation for compliance with the scientific quality criteria of empirical research (Mayring 2015, 58 ff.).

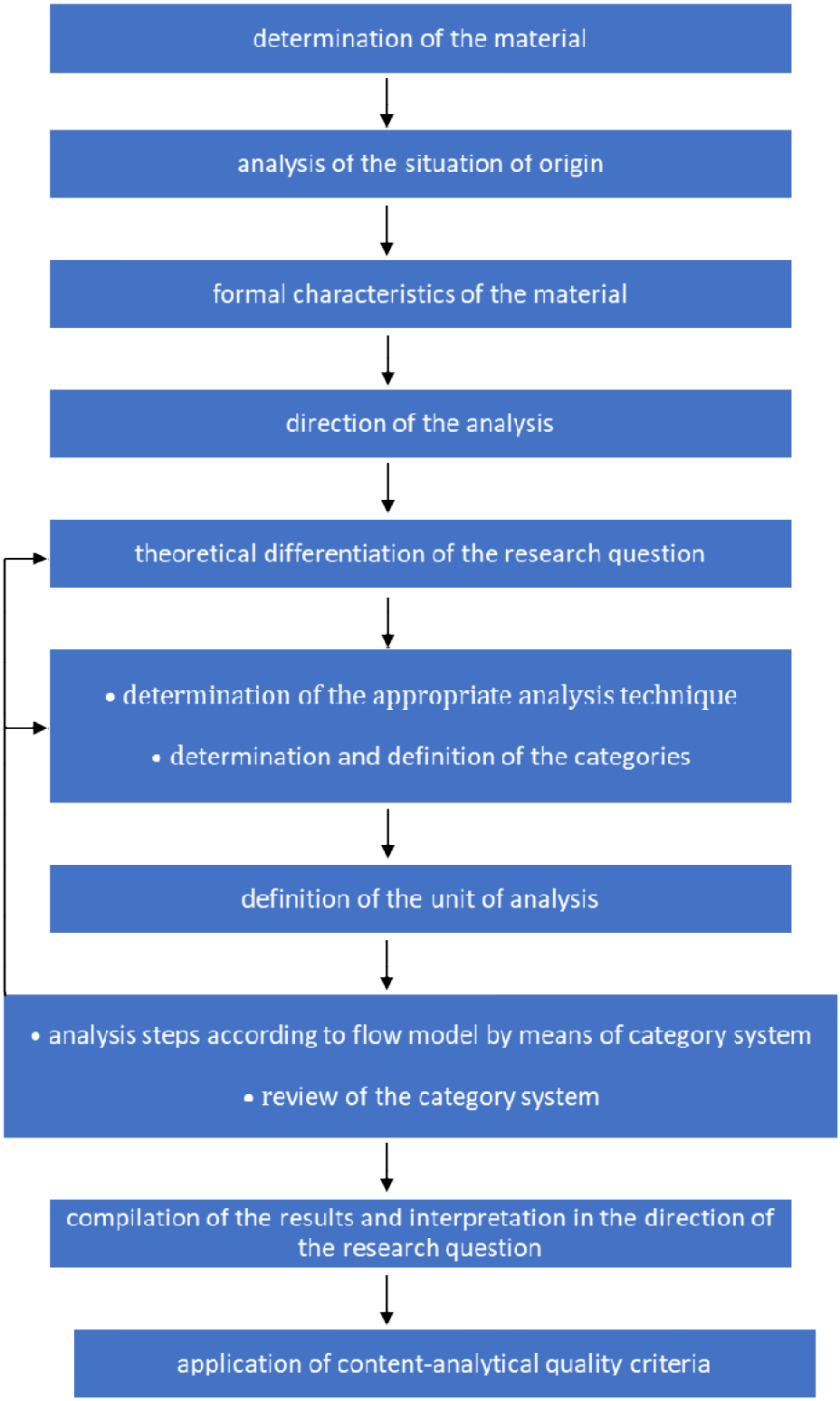

Figure 10. **Content analysis process model according to Mayring**
Source: Own elaboration according to (Mayring 2015, 60).

3.3 Quality criteria of empirical research

In empirical research, the question of the quality of the measurement process arises, which decisively influences the success of the investigation and the meaningfulness of the results. Measurement errors are not completely avoidable in any measurement process. Therefore, the goal in measurements must be to assess the measurement quality and minimize measurement errors (Himme 2009, 485). For this purpose, three main quality criteria are considered, but four secondary quality criteria have also become established in the literature (Fisseni 2004, 46).

The three main quality criteria of measurement are (Lienert and Raatz 1998, 11 ff.):

– Objectivity: objective measurement results are present if different persons who make the measurement independently of each other arrive at the same results.

– Reliability: Reliability measures the reliability and stability of a measurement instrument. In repeated measurement, the measurement results should be reproducible to be considered reliable.

– Validity: Validity refers to the validity and material accuracy of a measurement. To achieve validity, it must be confirmed that a measurement instrument measures exactly what it is intended to measure.

These quality criteria can be used to evaluate scientific data collection. The literature gives further secondary quality criteria, which are listed only briefly for reasons of the extent of this work. For deeper insights please refer to the literature e.g. Lienert and Raatz. The secondary quality criteria are (Lienert and Raatz 1998, 11 ff; Fisseni 2004, 46):

– Standardization
– Economic efficiency
– Usefulness
– Comparability

3.4 Concretization of the research questions

The goal of this paper is to design a PMS that is optimized for NCA sales in the IT sector, especially for B2B sales specific to the banking market. The literature provides detailed information on PMSs that can be deployed across the enterprise or generically at departmental levels. Furthermore, the literature provides key performance indicators that can be used in general sales. Goals and the general sales process can also be found in the literature. To meet the objective of this paper, the processed information must now be checked for validity in NCA Sales and supplemented if necessary. In particular, it is important to find out which business units have to be included in an NCA-Sales specific PMS and which other stakeholders are relevant. Furthermore, it is to be found out whether a PMS in NCA Sales can contribute to the growth and further development of the team. Another core aspect of this work will be to identify relevant metrics in NCA Sales. The last sub-aspect to be clarified is the goals that an NCA-Sales department is pursuing. Based on this data, a suitable PMS can then be chosen from the literature and adapted to the needs of an NCA-Sales department.

3.5 Choice of Methodology

Now that the research questions have been concretized, it becomes apparent that new data must be collected to achieve the research objective. A pure evaluation of already existing data is not sufficient to answer the questions. Thus, it is necessary to make use of the possibilities of primary research. Both a quantitative approach, such as a quantitative survey and a qualitative approach, such as an expert interview, are conceivable. Since the formulated questions generally aim at contents that are difficult to quantify, e.g. factors for personal education, a qualitative research method is chosen. As a methodology, the leading-question-based expert interview offers the opportunity to conduct explorative research in an area in which hardly any knowledge is available (Borchardt and Göthlich 2009, 38). The qualitative content analysis according to Mayring is ideal for evaluating the expert interviews, as it allows complex content to be structured and evaluated. This systematic approach, coupled with the flexibility that nevertheless exists, leads to the selection of qualitative content analysis according to Mayring as the analysis methodology in this work (Heins 2018, 310).

3.6 Parameters of the expert interviews

In this chapter, according to the already presented process model according to Mayring, the determination of the material, the analysis of the situation of origin, as well as the description of the formal characteristics of the material shall take place.

The material will be collected in the form of an expert interview. The research questions developed are:

– Which business units need to be included in an NCA sales-specific PMS?

– Which external stakeholders need to be involved in an NCA-Sales-specific PMS?

– What challenges does an NCA sales team face?

– Which key performance indicators are relevant for a PMS in NCA Sales?

– What are the goals of an NCA sales team?

– How can a PMS contribute to the growth and development of an NCA sales team?

In the form of an interview guide, these research questions are carried off and the conducting researcher uses the guide to structure the interviews.

A total of six interviews will be conducted in the German language. The interviews will be held between November 30th and December third in the year 2020. The interview time will always be in the afternoon between 1 pmand 5 pm. The interviews will be conducted using the WEBEX video chat software from CISCO. This software is the current standard of the company IBM and was chosen to eliminate any technical influences on the interviews as far as possible. Care was taken to maintain a similar time frame in all interviews to avoid any imbalance in the quantity of information per expert. Specifically, the interviews lasted between 18:57 minutes for I2 and 24:30 minutes for I1. The experts were members of the THINKBANK23 team focused on bank-specific NCA sales. The demographic structure of the interviewees is shown in Figure 19.

When selecting experts, care must be taken to ensure that they are representative of the group to be studied (Meuser and Nagel 1991, 453). In the case of this thesis, this group is to be defined as NCA sales teams of IT vendors specialized in bank sales. In the IBM company, this specialized team is THINKBANK23. Such a team usually consists of several sales representatives, so-called client executives, sales architects, so-called client executive architects, and a sales director. To represent this group, four client executives, one sales architect, and one sales director were interviewed as part of the expert interview in this paper.

ID	Age	Gender	Length of service	Title
I1	30	male	3 years	Client executive
I2	40	female	6 years	Client executive
I3	27	male	1 year	Client executive
I4	54	male	8 years	Client executive
I5	40	male	13 years	Sales director NCA-sales
I6	50	male	25 years	Client technical architect

Figure 11. **Survey structure of expert interviews**

Source: Own elaboration.

Care was taken to achieve the broadest possible demographic structure to exclude any possible age or experience bias. All of the experts were employees of IBM. For reasons of time and research economy due to the scope of this work, experts from other companies were not interviewed. However, it can be assumed that the interviewees also provide cross-company expertise and that the group is representative of the scope of this research. The limitation of the number of experts to six can also be justified by research economics. In addition, it can be assumed that the sample size represents the entire NCA sales area in the banking environment since the included experts cover the entire NCA banking sales area of the IBM company. This holistic coverage is intended to ensure the required depth of the interviews. This level of detail cannot be achieved by experts external to the company.

The interviews were integrated into the experts' daily work routine to create as normal and familiar an environment as possible. The experts have a very good collegial and friendly relationship with each other and with the author of this paper. The author of this paper himself is also part of the THINKBANK23 team. It should be noted that the surveys are being conducted just a few weeks after a drastic reduction in personnel was announced at the IBM company (Kerkmann 2020). An influence of this on the research results cannot be completely ruled out due to the possible emotional involvement of the experts.

The next step is to define in which direction the analysis should take place. Here, the analysis is clearly to be interpreted as a factual evaluation of expert opinions on an object of investigation, in this case, a PMS. An exact literal consideration of what is said and an interpretation of the wording is not considered to be purposeful and is therefore not carried out. The theoretical differentiation of the research question has already been done by setting up the research questions, however, the relation of the research questions to the respective theoretical basics shall be established here. The questions about internal as well as external influences on the performance should lead to the delimitation of the fields to be considered in a PMS. This is to be compared with the different fields of the BSC (external) or the different fields in the EFQM model (internal). The questions about challenges and goals in NCA-Sales aim at defining the different levels of goal achievement. The concrete goals set and the goals implied by challenges are addressed. These must then be brought into line with the business unit strategy. However, it can be assumed that there is a large degree of congruence. The question on metrics goes directly to the basis of any metrics system and explores which metrics are relevant to NCA Sales specific issues. The last question about the further development and growth of the team is particularly aimed at the learning and growth perspective of Kaplan and Norton's BSC (Kaplan and Norton 1996, 54).

3.7 Analysis structure of the expert interviews

Now that the parameters of the interviews have been presented, the next step is to define the analysis structure before subsequently outlining the specific findings that were obtained through the interviews (Mayring 2015, 62).To obtain the most accurate understanding of the knowledge provided by the experts, a relatively small granularity is chosen for the analysis. The aim is to ensure that, as far as possible, all factors that can be logically distinguished from one another are captured. For this, a certain sensitivity on the part of the researcher is indispensable. To prevent the researcher from exerting too much influence and to maintain the objectivity of the results, a layperson was consulted to check the granularity. The interviews were played to this person with the task of noting down all the individual aspects that could be logically separated from one another. These results, in combination with the fine granular assessment of the author of this thesis, lead to the user unit of analysis. To better present the results afterward, different super categories were formed for each question, which summarize the content of the previous analysis step. Again, to maintain objectivity, a layperson was used to perform his or her categorization independent of the researcher. The results were identical, apart from the chosen semantics, and can thus be considered objective and reliable. To increase reliability, a re-evaluation of the categories was carried out after half of the interviews, as recommended by Mayring (Mayring 2015, 62). Consequently, the categories formed could be confirmed in both granularities. In the next step, the results will be summarized and presented.

4 RESULTS AND DISCUSSIONS

4.1 Results of the expert interviews

The results have been consolidated in tabular form. On the left side are the guiding questions that were asked. Next to them are the subcategories formed, followed by a matrix representation of which category was mentioned in which interview. The number "1" only stands for at least once mentioned, but not for the actual number of

mentions of the category per interview. Next to it, the total number of interviews in which a mention was made is listed. Finally, the last column contains the supercategories relevant for the interpretation of the results. The supercategories are ordered by the number of interviews in which they were mentioned. However, it is not possible to conclude this number about the relevance of the category; for example, the influence of politics on the achievement of goals by NCA sales teams was mentioned in all interviews, but in some cases was characterized as having only a very small influence. In contrast, other items were mentioned in only a few interviews but were attributed great importance there.

The structure of this chapter moves from a macro perspective to a micro perspective and deals first with the external factors of a PMS for NCA teams via the goals to the detailed selection of key figures.

	Sub category	I1	I2	I3	I4	I5	I6	total	super category
Which external stakeholders need to be involved in an NCA-Sales specific PMS?	Politics	1	1	1	1	1	1	6	Other political and economic influences
	Other influences (pandemic)		1	1				2	
	Economic situation		1					1	
	Media						1	1	
	Clients	1	1	1	1	1	1	6	Clients
	Business-Partner	1			1	1	1	4	Business partners
	Competitors	1		1				2	Competition

Figure 12. **Influence of external stakeholders on the performance**

Source: Own elaboration.

As can be seen in the figure above, four external factors influencing goal achievement or performance can be captured.

One factor that has an impact on performance is political and economic influences. These influences include a wide variety of factors, some of which are difficult to measure, I2 says (Interview with I2 of 11/30/2020, 05:47):

"If we just look at the situation this year, with a worldwide pandemic, that certainly plays into it".

Other economic influencing factors can also be the economy or unforeseen events such as the fraud case at WIRECARD (Interview with I2 of 11/30/2020, 06:29-06:40). Politics is also a decisive influencing factor, especially according to I1, when the topic of "cloud" is discussed. Here, political issues between the USA as the company headquarters and the respective country in which the products are to be distributed are often relevant (Interview with I1 of 11/30/2020, 07:25-08:13). However, the influence of politics and regulation is not undisputed, so I5 acknowledges that implementation of industry-specific regulation would be desirable in principle, but due to high complexity in practice is hard to implement. Thus, I5 concludes that the influence of regulation is remote but less important for the performance of an NCA sales team (Interview with I5 of 12/1/2020, 07:25-08:03).

Another important influencing factor is customers as external stakeholders. It is noted that customers do not wait for IBM, but look elsewhere for suppliers to meet their own needs(Interview with I6 of 12/2/2020, 06:37-06:49). Also, changes in staffing structure, new targets, or a shift in focus at the customer can impact the performance of an NCA sales team (Interview with I5 of 12/1/2020, 05:49-06:14).

In addition, business partners are identified as stakeholders with a major influence on performance. Especially in the case of smaller and medium-sized customers, these are usually better networked than IBM itself (Interview with I6 of 12/2/2020, 04:56-05:10). I1 even speaks of a significant influence of business partners and says that his goals cannot be achieved without good cooperation with them (Interview with I1 of 11/30/2020, 06:50-07:24).

Last, competition is also mentioned as an external factor influencing the achievement of the NCA sales team's goals. Both I4 and I6 note that customers not yet served by IBM have sought other suppliers (Interview with I4 of 12/3/2020, 06:35-06:59).

It is therefore important to note that four relevant stakeholders can be identified. These must be taken into account when creating a PMS for an NCA sales team.

4.2 Influence of other business units on performance

	Sub category	I1	I2	I3	I4	I5	I6	total	super category
Which business units need to be included in an NCA sales specific PMS?	Brands	1	1		1	1	1	5	Brands
	Marketing		1			1	1	3	Marketing
	Human Ressources					1	1	2	Human Ressources
	Product management					1		1	Product management
	All business-units			1	1			2	

Figure 13. **Influence of other business units on performance**

Source: Own elaboration.

When examining for internal company departments to be considered in a PMS, no supercategories can be formed. This is due to a factual logical demarcation of the individual departments among themselves. Only the statement that all enterprise divisions are to be considered is taken out due to lack of precision from the result consideration.

However, special attention is paid to the involvement of the service delivery units, the so-called brands. These are considered relevant in five of the interviews. I4 says that alignment and dovetailing of strategy between the NCA sales team and the service delivery units are necessary and important (Interview with I4 of 12/3/2020, 03:26-03:43).

Marketing is also identified as an important business unit to include in the performance measurement of an NCA sales team. For example, I2 claims that in some places, better support from the marketing department can lead to increased performance (Interview with I2 of 11/30/2020, 03:30-04:08).

Likewise, the human resources department, as well as product management, are mentioned as influencing performance. I5 addresses the fact that employee satisfaction should also be recorded in a PMS and sees the HR department as responsible for this(Interview with I5 of 12/1/2020, 04:52-05:00).

The four departments mentioned above should all be considered in an approach optimized for NCA-Sales.

4.3 Challenges in NCA Sales

Now that both internal and external parties influencing the performance of an NCA-Sales team have been explained, the challenges facing an NCA-Sales team will be discussed below.

	Sub category	I1	I2	I3	I4	I5	I6	total	super category
What challenges does an NCA sales team face?	Identify suitable topics and products	1		1	1	1	1	5	Identification of suitable products
	Internal processes	1	1	1	1			4	
	Finding contact persons	1	1		1			3	Entry at the customer
	Gaining clients trust		1	1			1	3	
	Raising brand awarness				1			1	
	Standing up to the competition		1		1			2	Competition
	Product prices and product packages		1		1			2	
	Agility		1			1		2	
	Generate sales within a given time frame	1						1	Revenue

Figure 14. **Challenges in NCA Sales**

Source: Own elaboration.

Four challenges in NCA sales can be elaborated on based on the interviews.

The first challenge is to identify topics and products that are relevant to the customer. Here, care must be taken both to ensure that the topics are of interest to the customer and to ensure that the products can be offered afterward. In doing so, some internal processes must be taken into account, which must be run through from the very beginning in the selection of topics (Interview with I1 of 11/30/2020, 11:10-11:40)

Further, getting started with the customer is characterized as a challenge. In the reference model of the sales process, this maps to the acquisition phase.

"You go into companies where you don't yet have a foothold, don't yet have a base" (Interview with I3 of 12/1/2020, 08:31)

This results in the challenge that interested parties must first still be identified by the customer. Subsequently, the next challenge in the acquisition phase is arranging an appointment (Interview with I1 of 11/30/2020, 10:00-10:48).

Furthermore, as already explained in the context of external influencing factors, competition is mentioned as a challenge, as well as the generation of sales.

4.4 Goals in NCA Sales

	Sub category	I1	I2	I3	I4	I5	I6	total	super category
What are the goals of an NCA sales team?	Building Relationships	1	1	1		1	1	5	Relationship
	Getting access to clients		1	1		1		3	
	Increase brand awareness		1				1	2	
	Generate revenue	1			1	1	1	4	Revenue
	Identify business-opportunities			1				1	
	Growth					1		1	
	Select few focus-clients		1		1		1	3	Customer segmentation
	Segment customers				1			1	
	Teambuilding					1		1	Teambuilding

Figure 15. **Goals in NCA Sales**

Source: Own elaboration.

As expected, the goals largely reflect the challenges just mentioned. However, there is no total correspondence.

The goal that is mentioned most frequently is to build a customer relationship (Relationship). This goal can be seen as a logical conclusion from the challenge of getting on board with the customer.

"Keyword global pandemic - I think you can notmore exemplary clarify how important a resilient customer relationship is that you continue to talk even in these times" (Interview with I2 of 11/30/2020, 06:14).

I6 even describes developing a customer into a key account with a good customer relationship as a key goal of the NCA sales team (Interview with I6 of 12/2/2020, 01:24-01:40).

Also directly derived from a mentioned challenge, revenue generation is the goal to generate sales and increase them. In the fulfillment of this goal, the challenge from the competition also plays a role. Thus, one goal of the team is to make a significant numerical contribution and achieve growth of the area (Interview with I5 of 12/1/2020, 03:07-03:16). I4 also articulates a goal aimed at revenue generation (Interview with I4 of 12/3/2020, 01:04):

"To develop at least one customer to the point - within three years - that it then becomes an IBM customer with which we make significant revenue. Generating significant revenue means generating several million [euros] in revenue with the customer on a sustainable basis."

In addition to the goal of generating revenue, the segmentation of customers is also mentioned as a goal. This goal can also be found in I4's statement; he wants to select at least one customer specifically and does not set himself the goal of developing all of his customers to such a level.

I5 is the only expert who mentions building a sales team per se as one of his goals (Interview with I5 of 12/1/2020, 01:53-02:12). This objective can be attributed to I5's role as the leader of the THINKBANK23 team. Nevertheless, from the author's point of view, this organizational and also human level is a particularly interesting, although little considered, facet in a PMS.

It was possible to develop four goals in the interviews according to the bottom-up principle. To make these measurable, the next step is to present the key performance indicators found to be relevant by the experts.

4.5 NCA Sales-specific indicators

	Sub category	I1	I2	I3	I4	I5	I6	total	super category
Which key performance indicators are relevant for a PMS in NCA Sales?	Number of contacts with interested parties	1		1		1		3	Customer contact-related key figures
	Visited events	1					1	2	
	Number of customer appointments		1				1	2	
	Number of follow-up appointments			1		1		2	
	Contact intensity			1		1		2	
	Feedback data	1	1					2	
	Number of contact partners			1				1	
	Identified business opportunities	1	1			1		3	Sales-oriented key figures
	Sales volume and revenue				1	1	1	3	
	Sales targets in categories	1						1	
	Sales growth					1		1	
	Contribution margin	1						1	
	Measure processes	1	1					2	Internal process key figures
	Benchmarking to the competition		1					1	
	Education		1					1	
	Customer survey on sales topics	1						1	Feedback-related key figures
	Net-Promoter-Score						1	1	
	Feedback on the product				1			1	

Figure 16. **NCA sales-specific key figures**

Source: Own elaboration.

The indicators can be divided into four different thematic blocks.

On the one hand, key figures are named, which are to measure the customer contact. This can be done in different directions, for example, via the pure number of prospect contacts or also by concluding the success of customer appointments by measuring follow-up appointments (Interview with I6 of 12/2/2020, 13:47-13:55). These metrics serve as a good approach to measure the goal of relationship building.

Furthermore, some sales market-oriented metrics are mentioned, especially sales and sales growth. From the author's point of view, it is particularly noteworthy that contribution margin as a metric was listed here for the first time, but none of the experts mentioned contribution margin or net margin as a goal or challenge. A possible reason for this is the purely revenue-driven incentivization of the sales team at IBM so that the contribution margins appear irrelevant to the sales staff. From an overall business perspective, this is questionable.

Another category of metrics deals with the measurement of internal processes. This is related to the already described challenge of product selection for NCA customers, so internal company processes often work better for large, established customers than for NCA customers ((Interview with I4 of 12/3/2020, 07:53-08:20).

In addition, key figures that deal with direct customer feedbackare mentioned. Here, the main criterion is the measurement of customer satisfaction with both the sales support provided by the NPS and the products themselves.

4.6 Further success factors for an NCA-Sales optimized PMS

	Sub category	I1	I2	I3	I4	I5	I6	total	super category
Can a PMS contribute to the growth and development of an NCA sales team? If yes, how?	Yes	1	1	1		1		4	
	No				1		1	2	
	Target as a framework	1				1		2	PMS as a framework
	Strategy specification			1				1	
	Feedback opportunity			1				1	
	Possibility of qualitative evaluation				1			1	
	Motivational		1	1		1		3	PMS as a motivator
What else do you consider relevant for a PMS?									
	Realistic	1				1	1	3	Quality of Data
	Quality of data			1		1		2	
	Making qualitative aspects measurable		1		1			2	
	No pure sales consideration	1						1	
	Simplicity			1	1	1		3	Simplicity
	Automation				1	1	1	3	
	Can be integrated into existing systems				1			1	
	Transparency						1	1	
	Motivational	1				1	1	3	Motivation
	Measuring profitability		1					1	

Figure 17. **Other success factors for an NCA-Sales optimized PMS**
Source: Own elaboration.

When asked whether a mature PMS can help with professional development and growth, the majority of experts answered "yes." In particular, they point out that a PMS provides a framework within which the team can freely develop and evolve. In particular, data-based feedback can help team members smooth out their weaknesses and build on their strengths (Interview with I3 of 12/1/2020, 19:10-20:49). The idea of motivation is essential both in the further development of the team and in the assessment of a PMS.

In addition to motivation, the simplicity of the system should also be mentioned as a success factor for an NCA-Sales optimized PMS. Thus, according to I4, it is obvious that it must be a simple system that supports the team in their daily work (Interview with I4 of 12/3/2020, 20:43-20:53). I5 states as a premise for a good PMS that it should be very automated and easy to consume (Interview with I5 of 12/1/2020, 21:31-21:35).

In addition to the simplicity of the system, however, a particularly strong focus of the experts is placed on data quality.

"The [...] most important thing is the data quality" (Interview with I5 of 12/1/2020, 20:43)

I3 also places a particularly strong focus on data validity, saying(Interview with I3 of 12/1/2020, 21:11):

"You can have the best system in the world [...], but it's no good filling the system for the sake of the system."

Thus, when implementing a PMS, care must be taken not only to ensure that the design is theoretically correct but also that the criteria just explained are not disregarded in practice. In particular, to check data validity, a continuous feedback process should be introduced according to the bottom-up principle.

4.7 Conceptual Outline of an NCA-Sales Optimized PMS

Based on the results presented, it is now necessary to create a sketch for a PMS that is aligned with the needs of the NCA-Sales team. It should be noted that none of the performance measurement systems in the literature is ideally suited to implement all aspects that could be gained through the interviews. The most closely aligned to the needs is the BSC model, which is widely used in practice. However, this also cannot cover all requirements, so a modified BSC is proposed as a PMS. In the BSC, the four levels of the competitive situation, business partners and processes, learning and growth perspective, and the customer perspective should be taken into account. As an extension, it is recommended to introduce a factor for assessing the economic and political situation. This should be based on current events and multiplied by the target achievement levels in each of the four levels. In this way, it is possible to react to unforeseeable events and to quickly adjust the targets accordingly.

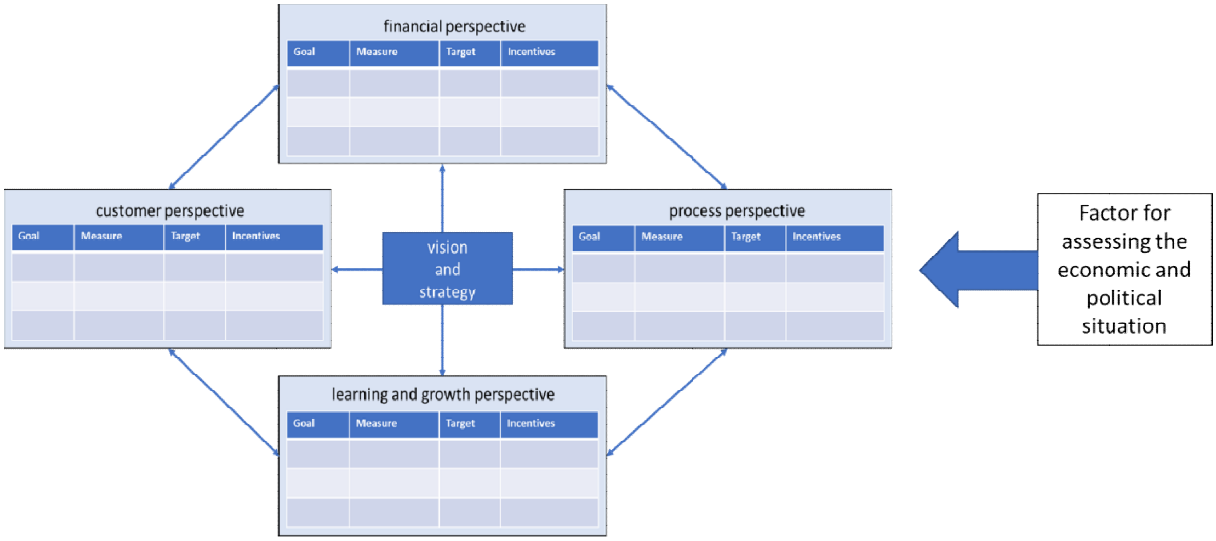

Figure 18. **Extended BSC for NCA Sales**

Source: Own elaboration.

The BSC shown is only suitable to a limited extent as a system that supports employees in their daily work. Rather, it serves as a general control instrument about the divisional strategy. A concrete representation of the goals for each employee individually is missed. Therefore, an operational PMS is recommended in addition to the strategic tool. The operational tool should focus on simplicity. A dashboard is recommended in which the most important figures appear, similar to a tableau de bord. The figure below shows an example of how such a dashboard could be designed for an NCA Sales employee. This is only an excerpt; the actual goals must be adapted to the employees depending on their strategic orientation.

Performance View NCA-Sales Member AB

Relationship	Revenue	Competitors	Processes
55%	78%	55%	48%
Key figure / Target achievement	**Key figure / Target achievement**	**Key figure / Target achievement**	**Key figure / Target achievement**
Follow-ups 65%	Identified Opportunities 100%	NPS 90%	Process steps 60%
Feedback quota 20%	Revenue 80%	Price comparison 30%	Process length 35%
Contact intensity 80%	Contribution margin 55%	Product feedback 45%	Satisfactiom 50%
Qualitative observations	**Qualitative observations**	**Qualitative observations**	**Qualitative observations**
Good relationship with client XY	Many opportunities validated but with low probability of closing	Price campaign at competitor X	Lack of marketing support
Client YZ is not responding	Poor contribution margins due to product X	Poor NPS at customer XY	Worldwide process 123 triggered

Figure 19. **Exemplary dashboard for NCA-Sales**

Source: Own elaboration.

The dashboard uses the categories and some key figures that were developed in the expert interviews. The connection should be made to an existing tool, e.g., a CRM so that the data can be automatically transferred to the dashboard. When designing the dashboard, care should be taken to ensure a simple design that nevertheless provides a quick overview of the relevant data. In addition, care was taken to ensure that qualitative comments can also be made on the respective fields. The color scheme with traffic lights makes it easy to identify deficits and provides an early warning function.

To conclude the concept sketch, it is important to note that the two systems must be considered in harmony with each other. The key figures of the dashboard can also be found in the BSC. NCA sales management can use the BSC to define and plan a strategy, but should then work out individual goals with each employee at the operational level with the help of the dashboard.

To expand the dashboard, the interdependencies of the individual key performance indicators should be examined more closely and quantified in further scientific discourse.

5 CONCLUSIONS

Now that a concept for performance measurement has been presented, this chapter will conclude and make a recommendation for action to the IBM company.

In this thesis, several approaches to performance measurement were explained and discussed their feasibility in practice. To address the question of a PMS that is tailored to the requirements of an NCA sales team in the banking sector, expert interviews were conducted and methodically evaluated.

Various external and internal stakeholders that have an impact on the performance of the NCA sales team were identified. In addition, four goals, as well as four challenges that arise in the NCA Sales area, could be developed. Furthermore, it was possible to define key figures that can be used to measure the achievement of objectives. Finally, three critical success factors for a PMS in the NCA sales environment for banks were identified.

Based on these findings, a recommendation for the design of a PMS was made. This involves a division into a strategic and an operational level.

The next steps are to test the extent to which the proposed concept is also suitable for practical use. This is merely a brief sketch by the author, which needs to be optimized and supplemented.

The author recommends that IBM integrates the proposed dashboard into the existing CRM system and provides each NCA employee with an individualized performance overview.

IBM should place a special focus on the simplicity of the system, as well as on the constant monitoring of the data quality. The motivational aspect of a PMS has also been identified as an essential goal.

For the implementation of the PMS, IBM is advised to involve the employees from the operational level, so that an acceptance of the system is created. Likewise, all levels should be included in the determination of the final goals according to the bottom-up principle.

Conclusively, based on the broad variety of influencing factors that have been identified, the author confirms the hypothesis, that through the business-specific requirements a more efficient and better-suited Performance Measurement System can be created. No other PMS was able to meet all the aforementioned requirements with enough guidance for practical implementation.

6. LIMITATION AND STUDY FORWARD

At the end of the work, the approach and the results of the work area to be critically reviewed. In particular, the adherence to scientific quality criteria will be discussed.

Expert interviews were chosen as the data collection methodology to be able to work in a field that has hardly been researched yet. This methodology has proven to be functional in researching most of the questions, but in the case of the question about key figures, the methodology must be considered less than ideal. From the author's point of view, it was not possible to provide a holistic overview of all relevant key figures.

Furthermore, the number of interviews conducted was limited for reasons of research economics. Only experts employed by IBM were interviewed. This raises the question of objectivity. In principle, a focus on only one company can be seen as critical. However, an attempt was made to counteract a loss of objectivity by using a very diverse age structure and different company affiliations. Due to the experts' professional experience gained outside IBM, it can be assumed that an IBM bias can almost certainly be ruled out. However, objectivity can only be assumed as given. For a check of the actual objectivity, a larger sample size from different companies would have to be selected. The results of such a second survey would then have to be compared with the results of this paper to definitively confirm objectivity. However, for this paper, which recommends a course of action for IBM, objectivity is sufficient.

The selection of the experts themselves must also be questioned. Experts were chosen who are active in the NCA sales field of investigation for the banking sector. An assessment of these on the subject of PMS is therefore very much from an operational standpoint. Another perspective was brought in by considering an NCA sales manager. However, no strategy consultants or controllers were interviewed as experts. By interviewing these groups, further insights could be gained. This should be given as a suggestion for future research on this topic. However, a general validity of the experts' statements can still be assumed, as the research questions were strongly aimed at operational activities. However, a validity check did not take place within the scope of this work. This represents another approach for future research. Also, the outlined PMS was only factually tested for validity by the author of this paper.

A quantification of the reliability, as recommended by Himme, did not take place in the context of this work (Himme 2009, 488). Solely the reliability of the individual categories was tested by a layperson performing the test again (Nunnally and Bernstein 1994, 252 ff.). Some variance is to be expected in the conduct of further interviews due to the survey methodology, although the results of this work can be seen as reliable. However, this can be attributed to the subjectivity of the experts that are incorporated in expert interviews and not to the methodological implementation.

The timing of the interviews should also be included in the critical review of the work. The interviews were conducted within a few days. This implementation aimed to create as equal a framework as possible for all experts to prevent any possible bias. However, this means that the results presented in this paper are only based on a brief snapshot. A change in the targets over time, for example, cannot be ruled out. It is highly doubtful that at a point in time before the Corona pandemic, even one expert would have mentioned a pandemic as an influencing factor on his performance.

Despite the presented criticism, the goal of the thesis could be achieved and a PMS optimized for NCA sales could be designed for IT vendors in the banking industry.

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