

# THE BALANCED SCORECARD IN A PHARMACEUTICAL COMPANY

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#### **ABSTRACT:**

The Balanced Scorecard (BSC) approach to performance measurement is gaining, over the last decades, an increased popularity due its strategic use of key non-financial measures along with the more traditional financial metrics. This dissertation outlines the process of development, implementation, usage and later on abandon, of the BSC in a Portuguese subsidiary of a leading international pharmaceutical company. In order to support my findings I review in the existing literature on the BSC concept and highline the characteristics of this concept analyzing the reasons of its popularity. In addition this dissertation postulates the likely impact of such a performance measurement system on the organizational behavior and provides a framework on how the BSC implementation can effectively help an organization in clarifying its mission and strategy into new goals. Finally, this dissertation outlines the organizational challenges and potential pitfalls associated to the BSC implementation.

**Keywords:** balanced scorecard, pharmaceutical industry, performance management, non-financial measures.

**JEL Classification:** M40 - Accounting and Auditing - Accounting; I12 - Health, Education, and Welfare - Health Production.

#### RESUMO

Ao longo da últimas décadas, o Balanced Scorecard (BSC) tem ganho uma acrescida popularidade graças ao uso de indicadores estratégico não financeiros em conjugação com indicadores tradicionais de natureza mais quantitativa. Esta dissertação descreve todo um processo de desenvolvimento, implementação, uso e, mais tarde abandono, do BSC na subsidiária portuguesa de uma grande companhia farmacêutica. Para sustentar as conclusões deste trabalho é efectuada uma extensiva revisão da literatura sobre o BSC, identificando as suas principais características e analisando os motivos da sua popularidade. Complementarmente esta dissertação avalia o impacto da implementação do BSC numa organização, no sentido de compreender se este sistema de controlo de gestão tem a efectiva capacidade de clarificar os objectivos e a missão estratégica nessa mesma organização. Por fim, esta dissertação sublinha os desafios e barreiras inerentes à implementação do BSC.

**Keywords:** balanced scorecard, indústria farmacêutica, gestão de desempenho, medidas não finaceiras.

**JEL Classification:** M40 – Contabilidade e Auditoria - Contabilidade; I12 - Saúde, Educação, and Bem-estar – Indústria Farmacêutica.

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From a "non-researcher's" point of view, writing an MsC dissertation might be considered as a rather lonely endeavor. That was at least my first impression when I initially started the MsC program at the ISCTE. With time, I gradually realized that doing an empirical research is very much about networking. Individual work is undoubtedly an important aspect, but to succeed one has to build a network of contacts - professional and academic contacts. If these acknowledgements were a formal part of my thesis, I would say: succeeding with an MsC means to create an alliance network around your dissertation. My particular gratitude goes first to my supervisor, Professor Maria João Major, who supported me with her knowledge and advice throughout the entire process.

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### CHAPTER 1

#### Introduction

In this chapter the background to the present research is described. An introduction to the Balanced Scorecard (BSC) is presented followed by illustration of the purpose and the research method of the dissertation. Finally, an outline of the dissertation is presented.

### 1.1 Background

The globalization movement in the last two decades of the twentieth century has implied increased requirements on organizations competitiveness. Organizations do not gain a sustainable competitive advantage by merely developing new technology into physical assets, or by focusing on excellent management of financial indicators. Process orientation, customer focus, supplier partnership, continuous improvement and employee knowledge are some of the improvement initiatives that are related to having a competitive advantage within contemporary organizations.

To be meaningful, company performance should be judged against a specific objective to see whether the objective is achieved, or not. Without an objective, a company would have no criterion for choosing among alternative investment strategies and projects. Performance measurement is important for keeping a company on track in achieving its objectives. The selection of the most appropriate performance indicators is however, an area with no defining boundaries as there are a number of purposes to which performance measurement can be put, although not all performance measurement can be used for all purposes.

More often than not however, performance measurement has relied on financial or accounting-based measures, despite the drawbacks associated with such an approach. Specifically, the use of financial measures alone has serious limitations because of their inherently backward-looking nature, their limited ability to measure operational

performance and their tendency to focus on the short-term. The reliance on financial measures alone, therefore, to present the true picture of organizational performance, is in itself backward looking, especially as organizations are confronted with increasing expectations from a variety of stakeholders. As a result, an organization requires more from its performance measurement system than ever before. The method, it self, of monitoring performance needs to be dynamic in order to adapt to internal and external changes.

In 1992, Kaplan and Norton introduced the Balanced Scorecard (BSC) concept as a new system for organizing both financial and non-financial performance measurements. In the beginning of their article they discuss the well-known device these days, "what you measure is what you get" (Kaplan and Norton, 1992: 71), which points out the authors' view on the role of performance measurements in managerial work. The wide range of financial and non-financial measurements, which the scorecard offers, provides managers with a comprehensive framework representation of both the organization's tangible and intangible assets. The BSC addresses the need for multiple measures of performance and provides a strategic framework, which specifically encourages the use of both financial and non-financial measures along four perspectives - financial, customers, internal business processes, and learning and growth - to measure organizations performance. In both research and practice, the BSC has received much attention, particularly as a tool for driving unit level strategy within many industries, including hospitality, health, manufacturing and banking.

In 1996, Kaplan and Norton evolve the concept further to become a strategic management system, which they argue supports four managerial processes, namely clarify and translate vision and strategy, communicate and link strategic objectives and measures, plan, set targets, and align strategic initiatives and enhance strategic feedback and learning (Kaplan and Norton, 1996b).

The BSC appears to have all the answers for choosing the most appropriate measures of company performance, which are governed by the organization's strategic orientation and

external competitive environment. The success of the BSC relies on a transparent and well-defined strategy as the basis for the development of specific and relevant performance measures. The BSC acknowledges that organizations respond to the environment they face in developing their strategy and their performance measurement system, in order to achieve their objectives.

### 1.2 Purpose and Research Method

The purpose of this study is the increase of the understanding of how the BSC is used in the commercial organization of a major pharmaceutical company operating in Portugal. This work is operationalized by studying how a BSC entered a single, multinational corporate group and diffused internally, over time, in the Portuguese organization and thru out its different departments.

Understanding the use of the BSC involves the gathering of knowledge on how it was designed, implemented, used and later on abandoned in the organization. In this study, the design of the BSC corresponds to one first level of description and investigates what the system does and why. The design includes the description of the contents of the BSC in the organization, what the BSC emphasizes and why the BSC points to the things it does. For instance, the perspectives in the BSC and why these perspectives were chosen in the organization are illuminated. The implementation of the BSC reflects a second level of description and focuses on how the BSC was transformed and evolved in the organization. The choices of BSC representations are illuminated through describing how the BSC was built, deployed and disseminated throughout the organization. The study of the implementation reflects a historical aspect of an organization, and is a useful consideration in understanding the final results of BSC in this organization. The use of the BSC focuses on the physical realization of the system in the organization and thus represents the third level of description. The use dimension explores activities, such as documentation of measurements, reconstruction of strategy, reporting of results and communication within units, dissemination of information, and strategic planning all related to the BSC realization. Thus, the use dimension focuses on how people made use of the BSC in their day-to-day practices. The *abandon* of the BSC represents the fourth level of description, detailing the reasons why the tool was abandoned, mentioning the events leading to this decision.

The research method chose to perform this work was a case study, performed in a retrospective perspective, since I will be focusing in a well delimited period of time, to the year since 1999 and 2003.

## 1.3 Expected Contributions

This study aims to increase the understanding of the use of the BSC in a subsidiary of an international pharmaceutical company, operating in Portugal. The dissertation also hopes to contribute to an understanding that hopefully will trigger off reflections among other Portuguese companies on how they can improve and develop BSC in their context. This study also aims to contribute to theoretical assumptions that may be investigated in further research. The dissertation also aims to investigate the design and implementation process of the BSC in a Portuguese pharmaceutical company context and how these influence the use of the tool.

Some of the interrogations that this work aims to illuminate are: How was implemented the BSC is a specific pharmaceutical company? How was used the BSC in this particular company?

Finally, this study aims to contribute to the increase in the knowledge on how companies in the pharmaceutical sector operate and how important strategic vision is in turning potential into performance.

## 1.4 Outline of this Study

This dissertation is organized in the following manner. Chapter 2 reviews the literature on performance management and measurement highlighting the need for organizations to use both financial and non-financial performance indicators, mainly focusing in the theoretical framework of the BSC as a useful tool from which to develop such measures. Chapter 3 accounts for the methodological approach employed in this dissertation. Research strategy, collection and analysis of evidence, and the quality of research are some topics that are presented and discussed in Chapter 3. In chapter 4, a short background of the case company is presented followed by a case description. The application of the BSC is described with respect to how it is designed, implemented, used and abandon in the company, analyzing the results from the case study. Finally, in Chapter 5 the findings from the empirical study are synthesized and the research process is critically discussed. Study limitations are also presented along with an agenda for future research.

#### **CHAPTER 2**

#### The Balanced Scorecard Framework

This chapter is basically constituted by a detailed description of the BSC, in order to increase the understanding of this tool and to facilitate and support the analysis of this dissertation.

#### 2.1 Balanced Scorecard - Literature Review

The BSC is probably one of the most well diffuse performance measurement systems, that consists of a set of measures that enables the top management to get a fast but comprehensive view of the business and it is used for converting the strategy into action. A detailed literature review illustrates why this tool has achieved a world wide astonishing popularity.

#### 2.1.1 Contents of a Balanced Scorecard

As defined by its creators, in the beginning of the 1990s, Robert Kaplan and David Norton, the BSC is a performance measurement system that "... provides executives a comprehensive framework translating a company's strategic objectives into a coherent set of performance measures... It complements traditional financial indicators with measures of performance for customers, internal processes, and innovation and improvement activities..." (Kaplan and Norton, 1993: 134).

The effectiveness of the BSC is based on its ability to translate a company's mission and strategy into a comprehensive set of performance measures (Kaplan and Norton, 2001a). These authors defended the BSC concept as a tool to help overcome the problems related to measuring financial results only, which was vividly discussed as the weak spot of contemporary management accounting practices. Johnson and Kaplan (1987) illustrated

in "Relevance Lost - the Rise and Fall of Management Accounting", that the management accounting practices of the 1980s had not kept pace with the recent developments in business environments. In times when "... rapid technological change, vigorous global and domestic competition, and enormously expanding information processing capabilities, management accounting systems are not providing useful, timely information for the process control, product costing, and performance evaluation activities of managers" (Johnson and Kaplan, 1987: 5).

The effects of merely financial-based management accounting systems proved to show a particularly effect when companies ended up in situations where they had to focus on short-term financial results instead of long-term organizational goals (Nørreklit, 2000). In these cases new investments in growth and innovation potential were avoided, as they had a negative effect on financial results. Obviously, this strategy will only work in the short-term. In the long run, efficiency, competitiveness and customer loyalty suffered and in the worst case even threatened survival of the company (Olsen and Slater, 2002). Such issues made many researchers conclude that management accounting systems of the 1980s, which were still based on developments in the 1920s, were old fashioned and simply did not meet the needs of contemporary business (Voelpel *et al.*, 2004)

The BSC approach involves the identification of the key components of operations, setting goals for all of them, and then finding ways to measure progress toward achieving those goals - together, the measures provide a holistic view of what is happening both inside and outside the organization (on the operational level), thus allowing each member of the organization to see how their activities contribute to attainment of the organization's overall mission. Such a system of measures is therefore driven by a strategy where success goals are defined and a method of achieving is established. Management works out how to monitor progress and establishes the investment needed to make this self-sustaining (Kaplan and Norton, 2001b).

The BSC can help the organization to clarify its corporate vision and strategy, communicate and link strategic objectives and measures to plan, set targets and align

strategic initiatives and to enhance strategic feedback and learning. Even the name its self of this performance measurement system reflects the need for a balance between short and long time horizon for goals, between financial and non-financial measure parameter, between lag and lead indicators and between internal and external perspectives (Kaplan and Norton, 2001c).

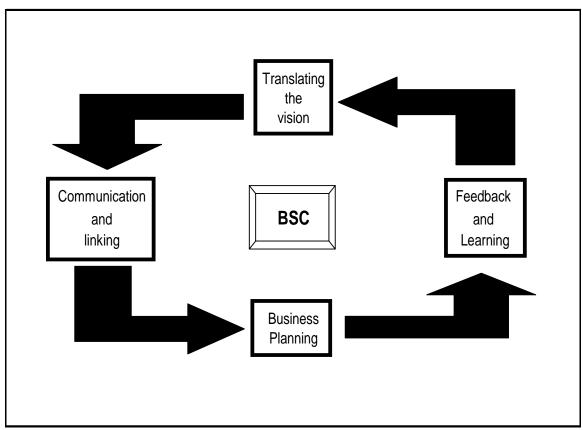


Figure 1 - Managing Strategy: The Four Processes of the Balanced Scorecard

Source: adapted from Kaplan and Norton, 1996a: p. 79.

The framework of the BSC is based on the premise that the properties of the financial accounting system such as conservatism, transaction emphasis, and monetary base unit of measurement, prevent it from measuring the key activities of the company adequately (Alhn, 2001). Rather, Kaplan and Norton suggest complementing the traditional financial measurement system with non-financial measures of customer relations, internal business processes, and organization learning and growth in order to specify what the organization

expects to receive from and give to the various stakeholder groups in exchange for those groups continued contribution toward the organization's pursuit of its objectives.

The BSC is explicitly based on the growing acceptance of two related premises. The first is that future success involves providing superior value to customers, employees, and shareholders. The second is that attracting shareholder funds, employee talent, and customers are the three fundamentals of sustainable competitive advantage and superior returns to investors (Kaplan and Norton, 1996a). This challenging framework of the BSC contemplates four perspectives - financial, customer, processes and learning and growth - represent the views of four essential stakeholders in any business. All stakeholders have choices - shareholders can sell stock; customers can buy from another provider; and employees can work for another company. If value is created for each of these stakeholder groups, the company will be more likely to produce superior return for investors for a longer period (Richardson, 2004). A company can ignore the expectations of one of its stakeholders and still succeed in the short run. But in the long run, the business cannot ignore any of these stakeholders (Atkinson et al., 1997). This is because all stakeholders are interrelated. Employee attitudes and behaviors impact upon the level of customer satisfaction and retention, while customer attitudes and behaviors influence shareholder satisfaction and retention. Finally, shareholder satisfaction affects employee satisfaction through bonuses, stock options, or further investment in employee growth and development. Although the selection of relevant performance measures will depend upon the specific situation facing each company, the BSC is perhaps most groundbreaking in stressing the necessity of both financial and non-financial indicators and putting them on a more or less equal footing.

## 2.1.2 The evolution of the Balanced Scorecard Concept

The beginning of studies that led to the creation of the BSC dates back to the yearly 1990's when the Nolan Norton Institute, a research unit of KPMG, sponsored a year-long study of several companies entitled "Measuring performance in the organization of the

future". The motivation for the study came from the belief that existing methods of evaluating business performance, usually based on accounting and financial indicators, were interfering with the ability of companies to create economic value for the future. David Norton, Chief Executive of Nolan Norton, was the leader of the group and Robert Kaplan served as academic consultant. Kaplan was already well known in academic circles for his publications on measurement criteria, e.g., Activity-Based Costing (Cooper and Kaplan, 1992). Representatives from dozens of companies from a variety of economic sectors met every two months during 1990 to develop a new model of measuring performance.

One of the cases studies was a company called *Analog Devices*, which was using a corporate scorecard that contained, in addition to the usual financial measurements, other non-financial measures of performance. The group discussions led to broadening the scope of the scorecard, which was transformed into what it now call the BSC, organised around four distinct perspectives – financial, the customer, internal and innovation and learning. As it was explained, the name reflects the balance between short and long-term objectives, between financial and non-financial measures, between indicators of trends and events and between internal and external views of performance. The conclusion of the study, in December of 1990, documented the viability and benefits of this system of strategic measurement.

The conclusions of the study were summarised in an article published in the *Harvard Business Review* (January-February 1992), under the title "*The Balanced Scorecard – Measures that Drive Performance*". At that point, a number of executives, still under the misconception that it was a system of indicators, asked the authors for help implementing the concept in their companies. Their early work reinforced the idea that the BSC measures were linked to organisational strategy. This evidence led to the publication of another article in the *Harvard Business Review* (September-October, 1993): "*Putting the Balanced Scorecard to Work*". By mid-1993, Norton had become the Chief Executive of Renaissance Solutions, Inc., a company that offered, as one of its main services, strategic consulting based on the BSC as a vehicle for enabling the interpretation and

implementation of strategies. The experiments conducted showed that the more daring executives were using the BSC not only to clarify and communicate strategy, but also to manage it. In reality, the BSC evolved from a finely tuned measuring system into an essential management system, used as the principal organisational tool for important managerial processes: establishing individual and group goals, pay, allocation of resources, planning, budgeting, feedback and strategic learning. This evolution was summarised in a third article, "Using the Balanced Scorecard as a Strategic Management System", Harvard Business Review (January-February 1996).

Based on the three published articles and their acquired experience, and in response to requests for further information on how to build and implement the BSC, the authors launched a book in 1996 entitled "The Balanced Scorecard: Translating Strategy in Action". In the book's preface, meanwhile, the authors expressed a feeling that the work was still incomplete and the impression that the concept needed to evolve further still. Two years later, in 1998, after the creation of the Balanced Scorecard Collaborative (BSCOL), which provided consulting and facilitating services focused exclusively on this subject; countless other experiences in applying the concept in organization from various spheres of activity and from a number of other published articles, the authors confirmed the belief they expressed in their first book in a second book entitled "The Strategy Focused Organization". In every aspect, the prediction showed great foresight. Since 1996, the academic community has have been witnessing the growth and prosperity of the first group of BSC followers, who used the new tool as a central element of their respective management systems and processes. Adopters include organisations all round the world, large and small, industrial and service-oriented, mature and up-and-coming, public and private, for profit and not for profit. It was found that follower companies were using the BSC to solve a more important problem than that of measuring performance in the information age. In this new publication the authors emphasise the need for the BSC not to be an end in and of itself, but rather a management tool around which a new organisational model orbits.

After the analysis of hundreds of strategy scorecards built in organizations, Kaplan and Norton propose in their fourth article "Having trouble with your strategy? Then map it", Harvard Business Review (September-October 2000), a new BSC framework/approach, which they call a strategy map. The strategy map for a BSC makes explicit the companies' strategies by presenting every measure in the BSC in a chain of cause-and effect logic that links the desired outcomes from the strategy with the performance drivers that will attain the strategic outcomes. The strategy map describes the process for transforming intangible assets into tangible customer and financial outcomes (Kaplan and Norton, 2000). Kaplan and Norton defended that the strategy maps support the organizations to see their strategies in a cohesive, integrated, and systematic way, which provides the foundation for the management system for implementing strategy effectively and rapidly. The authors describe the strategy map as a way of designing the BSC and communicating the strategy throughout the company.

Executives from organisations that adopted the BSC applied it to realign their business units, shared services units, teams and individuals around general organisational goals. As a result, critical management processes – planning, allocation of resources, budgeting, periodic reports and managers meetings – all concentrated on the strategy. Within this framework, vision, strategy and resources flowed from the top down; implementation, innovation, feedback and learning flowed back from the bottom up, from the front lines and the back offices. With the new focus, realignment and learning, the organisations exhibited extraordinary and non-linear performance. The whole was truly transformed into more than the sum of its parts.

Inspired by the work of Kaplan and Norton, academics and executives in other countries have sought to study the concept and help perfect it. Advances have been seen especially in Europe, Latin America and Australia, where four local affiliate consulting firms have been certified by the BSCOL. Many authors have, in part, predicted the success of the BSC method, leading us to believe that it will soon become an accepted managerial practice worldwide.

## 2.1.3 The Four Balanced Scorecard Pillars

As mentioned previously, within the BSC four categories of measures are identified in order to achieve balance between the financial and the non-financial, between internal and external and between current performance and future performance (Kaplan and Norton, 1992). The four perspectives are **financial**, **customer**, **processes**, and **learning and growth** (as represented in Figure 2) and represents the views of four essential stakeholders in any business.

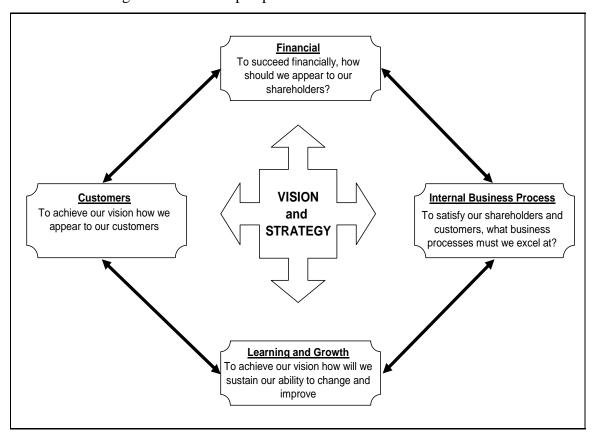


Figure 2 - The four perspectives of the Balanced Scorecard

Source: adapted from Kaplan and Norton, 1996a: p. 78.

By understanding the organization in this context, the manager can learn what connections exist between the different perspectives. Earlier, these perspectives have been viewed orderly and separately from one another. The common picture of the four dimensions is by far one of the greatest contributions of the BSC concept.

The **financial perspective**, as reflected in financial measures, is the most traditional and still most commonly used measurement tool. Financial measures are valuable in conveying the readily measurable economic consequences of action already taken. Financial measures are typically focused on profitability-related measures, the basis on which shareholders, in turn, typically gauge the success of their investments, such as return on capital, return on equity, return on sales, etc. (Kaplan and Norton, 1992).

These measures are necessary for any organization trying to measure performance for a number of reasons. First, reporting of financial measures is expected and governed under law. Second, reporting of certain types of financial measures of firm performance is required by institutional bodies. Third, reporting of financial measures is expected from all stakeholders and is ingrained in history as a way of framing and comparing organizational performance.

The **customer perspective** typically includes several core or general measures derived from the desired successful outcomes of a well-formulated and implemented strategy. These core measures may include overall indicators such as customer satisfaction, customer complaints, customers lost/won, sales from new products, and on-time delivery (Kaplan and Norton, 1992). Measures related to customers include results from customer surveys, sales from repeat customers, and customer profitability. The customer perspective is a core of any business strategy which describes the unique mix of product, price, service, relationship, and image that a company offers (Kaplan and Norton, 2001a). The customer perspective defines how the organization differentiates itself from competitors to attract, retain, and deepen relationships with targeted customers. The value of the customer perspective is crucial because it helps an organization connect its internal processes to improved outcomes with its customers (Kaplan and Norton, 2001a). Of the four BSC perspectives, the customer is at the core of any business and is crucial to long-term improvement of company performance. The customer-based virtuous circle, whereby investment in employee training leads to improved service quality; which in turn

results in higher customer satisfaction leading to increased customer loyalty, which boosts revenues and margins(Smith and Wright, 2004).

Internal business process measures relate specifically to the operational processes of the business unit. Internal business process measures represent the perspective of the operations management within the BSC model. The internal process perspective is based on the notion that to satisfy customers and earn a financial return, the business must be efficient and effective at what it does. The internal process measures are typically based on the objective of most efficiently and effectively producing products or services that meet customer needs. For example, such measures may include order conversion rate, ontime delivery from suppliers, cost of non-conformance, and lead-time reduction (Kaplan and Norton, 1996a).

**Learning and growth** measures represent the employees as part of the four pillars used to measure performance with the BSC framework. The innovation and learning perspective is all about developing the capabilities and processes needed for the future. This innovation process can be measured in a variety of ways. These may include the speed of transactions, or the number of people involved in a particular transaction, etc. Again, the choice depends on what is critical for the success of each particular business (Kaplan and Norton, 1996b).

Acknowledging that performance measures relating to learning and growth are the most difficult to select, Kaplan and Norton suggest measures of employee capabilities, information systems capabilities, and employee motivation and empowerment as examples. An example is presented below (Figure 3) of the type of measures associated with each of these pillars used by Chemical Bank when it adopted the BSC to communicate and implement a new retail strategy in the face of declining margins and increasing competition (Kaplan and Klein, 1996). This is then a performance measurement system with a dashboard of a series of measures, which provides management with information about operations of many different processes, describing both what has happened and what is (expected) happening.

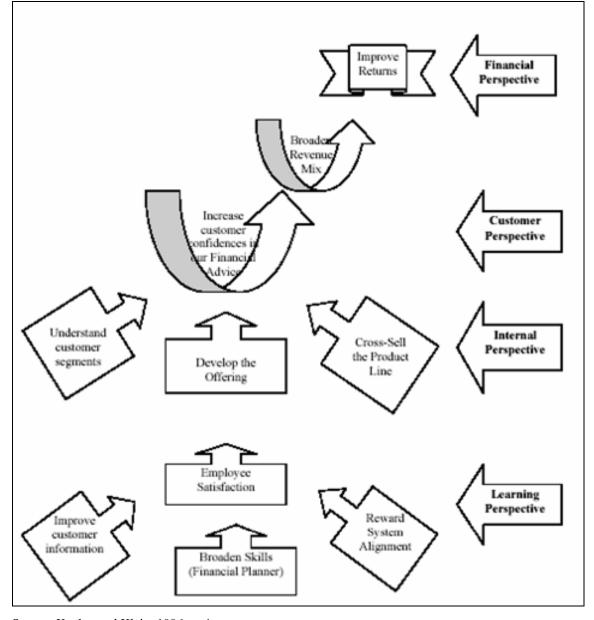


Figure 3 - The Chemical Bank Balanced Scorecard

Source: Kaplan and Klein, 1996: p. 4.

As metaphorical described by Kaplan and Norton "the scorecard is an airplane cockpit providing the pilot with detailed information about several aspects of the flight" (Kaplan and Norton, 1992: 71). Therefore, the concept is not of a control tool, but rather a strategic tool to help managers look ahead. In addition, the BSC shows how the results

are achieved not only that they are achieved, this being a crucial aspect when trying to understand our organizations.

Within each on these four perspectives, critical success factors are developed, constituting the bridge between the vision, strategy, perspectives and the performance measurements and are critical to the company's future success. Action plans should also be included, describe how the company should act to achieve its vision. Anthony and Govindarajan (2001: 72) describe the BSC as a performance measurement system, which "fosters a balance among different strategic measures in an effort to achieve goal congruence, thus encouraging employees to act in the organization's best interest".

## 2.1.4 Building and Implementing a Balanced Scorecard

In their article from 1993, Kaplan and Norton further suggest how the BSC should be built and implemented in organizations. Although they argue that each organization is unique and follows its own process in developing a BSC, they present a general development plan in building a balanced measurement system. The plan includes eight steps aiming at creating the BSC and encourages commitment among senior and midlevel managers (Kaplan and Norton, 1993). The steps are: Preparation; Interviews: First round; Executive workshop: First round; Interviews: Second Round; Executive workshop: Second round; Executive workshop: Third round; Implementation; and Periodic reviews.

In the *preparation step*, the authors argue that the organization needs to define the business unit for which a top-level scorecard is appropriate. The scorecard is, according to Kaplan and Norton, primarily appropriate for units that have their own customers, distribution channels, production facilities and financial performance measures. The *interviews* aim at identifying strategic objectives and give input to the critical measurements, which should be built into the scorecard. A "Balanced Scorecard facilitator" identified as an external consultant, or an executive is recommended to organize the interviews and facilitate the implementation process. Before the interviews,

the senior managers of the unit receive material of the BSC and descriptions of the overall vision, mission and strategy. In the next step, executive workshop, the top management team is brought together to build a scorecard. The mission and strategy is then debated and key success factors are defined. Within each perspective, operational measures are defined, which are based on the strategic objectives. The second round of interviews focuses on the output from the tentative scorecard and on receiving input about how to implement it. The following executive workshop step involves all mid-level managers and aims at reflecting upon the proposed scorecard. In addition, targets for each measure are set. The third round of executive workshop includes the top management team again and aims at reaching consensus on the total scorecard. The team should also agree upon the implementation program. The implementation of the BSC is led by a team, which has planned how to integrate the scorecard with databases and information systems, how to communicate the scorecard throughout the organization and how to promote the development of scorecards for decentralized units. Thereafter, periodic reviews should be performed in each quarter or each month by top management in order to discuss matters with managers from other decentralized units. Kaplan and Norton (1993) suggest that the measures should be revisited annually as part of the strategic planning, goals setting and resource allocation process.

In their book "The Strategy-Focused Organization" from 2001, Kaplan and Norton develop the *implementation* phase presented in 1993. They argue that a successful BSC program starts with the recognition that it is a change project and not a "metrics" project. They describe the change process through three phases, which they claim can evolve over two to three years. The phases are mobilization, governance, and strategic management system. The first phase, *mobilization*, makes clear to the organization why change is needed. The executive leadership identifies and communicates that there is a need for change in the organization. The second phase, *governance*, starts when the change process has been launched. This phase includes reinforcement and definition of new values through open communications, town hall meetings and strategy teams. Kaplan and Norton (2001) argue that strategy should be everyone's everyday job, which requires that everyone take part in the strategy discussion. They emphasize the importance of making

all employees understand the strategy and conduct their work in a way that contributes to the success of that strategy. However, they claim it is not a top-down direction of implementation with a low level of involvement of employees; it is rather a top-down communication (Kaplan and Norton, 2001c). The third phase of the change process includes linking traditional processes, such as formal planning, budget, and compensation to the BSC in order to create a strategic management system. As Kaplan and Norton stated, "The scorecard described the strategy while the management system wired every part of the organization to the strategy scorecard" (Kaplan and Norton, 2001c: 17)

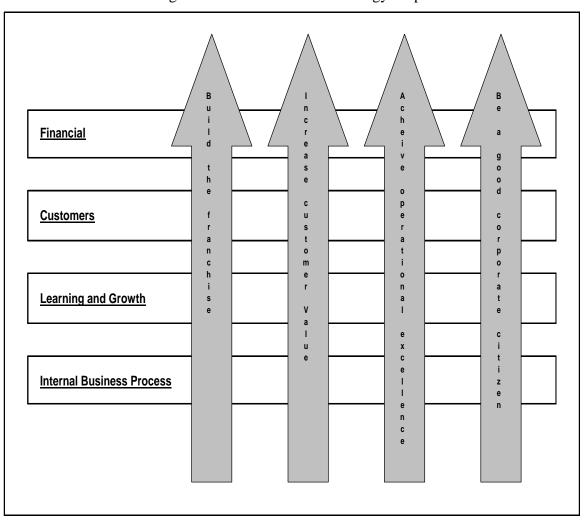


Figure 4 - Architecture of a Strategy Maps

Source: adapted from Kaplan and Norton, 2001: p. 45.

Olve et al. (2003) present several design issues that scorecard projects need to address. The issues are relevant in both introducing and using scorecards. The authors advocate that the issues should be addressed in a certain order: Strategy maps; Dialogues; Roles; Interfaces; Incentives; and IT support. The authors suggest that the project starts in building strategy maps in order to illustrate the strategy and linkages between objectives and measures (see Figure 4). The authors further argue that the scorecard should be communicated throughout the organization. They claim that the scorecard "has often been welcomed when similar metrics are perceived as part of a living dialogues about what is worth doing and how performance relates to organizational progress" (Olve et al., 2003: 35). They argue that this dialogue requires that management is able to engage people in the dialogue and to have enough knowledge about the organization's possible future.

Compared to Kaplan and Norton (2001), the authors emphasize the need of creating a dialogue of the future statement instead of a "top-down" communication in which employees have a minor role in the discussions. Olve et al. (2003) further advocate the need of assigning responsibility in a BSC project. The design of the BSC technology, training and promoting are some areas that need to be assigned to different people in the organization. The authors argue that the company then should deal with how the different scorecards should be related. Should the measures be the same throughout the organization, or should each unit determine their own measures? Next, incentives for making the scorecard work and ensuring that measures are competitive need to be considered. The authors discard the idea that incentives or rewards are generic success factors in a BSC project and point out that incentives, and mainly financial incentives, need to be implemented with great care. Although the authors do not advocate incentives as a way to stimulate a "BSC behavior" among employees, they argue that incentives should be linked to the BSC since it will demonstrate the management's belief in the BSC. Finally, the authors present the issue of implementing an IT support for the BSC. They claim that most organizations benefit from having a BSC on the intranet since measures become easily accessible to the organization.

## 2.1.5 Barriers Obstructing the Balanced Scorecard Implementation

Since strategy implementations often fail, Kaplan and Norton have identified four possible reasons for the shortfall. They argue that the main causes of poor strategy implementation are (Kaplan and Norton, 1996a, 2001b):

- Visions and strategies are not actionable;
- Strategies that are not linked to departmental, team and individual goals;
- Strategies that are not linked to long and short term resource allocation;
- Feedback that is tactical and not strategic.

Kaplan and Norton (1996a, 2006b) claim that the first barrier occurs when the organization can not translate its vision and strategy into terms that can be understood and acted upon. Where fundamental disagreement exists about how to translate the vision and mission statement into action, the consequence is suboptimal use of efforts. With lack of consensus and clarity, different groups will work after different agendas according to their own interpretation of the vision and strategy. Their efforts are neither integrated, nor cumulative, since they are not linked coherently to an overall strategy. Ceelman (1998) present a similar barrier. This is named "lack of understanding of the strategies in the organization". He means that those that shall execute the strategies may not understand them because they are uneasy to transform into operative goals. Furthermore, Thompson and Strickland (2001) claim that one can not adopt and implement a leader's vision if one does not know it. If the vision and strategies are not known to us, one can not act after them. They present ten commandants needed to be in place for change with a strategic fundament. They promote that the organizations' corporate strategies are the starting point for the change process and the allocation of resources must follow the strategy. Beer and Eisenstat (2000), claim that unclear strategies and prioritizing may conflict with poor horizontal coordination. This may occur when having different strategies and are fighting for the same resources. This also indicates that the understanding of the overall strategy and action plan is important. The middle mangers can not be expected to cooperate effectively when top management strategies drive them in competing directions (Malina and Selto, 2001).

The second of Kaplan and Norton's (1996a, 2005a) barriers arise when the long term requirements of the business units and strategy are not translated into goal for departments, teams and individuals. Instead, departmental performance remains focused on meeting the financial budgets, established as a part of the traditional management control process. Likewise, teams and individuals within departments have their goals linked to achieving departmental short term and tactical goals and not on building capabilities that will enable achievement of longer term strategic goals. Ceelman (1998) is in line with Kaplan and Norton (1996a, 2005b), and presents a barrier where individual goals and competence development is not linked to the implementation of strategy. The author also mentions that the management system often is designed for operational and not strategic control, and that focus remains on the traditional management control processes. On this point, Ceelman (1998) argues that managerial information is connected to budgets and accounts rather than strategy. As the budget is the key instrument to prioritize, it is also the most powerful tool in establishing linkage and relationships between departmental and individual goals and the strategy. Thomson and Strickland's (2001) success factors point out that organization's training and education program must be adjusted and harmonized with the organizations core values. This is one way to secure that enough resources are used on these areas. Furthermore, personal acknowledgement and incentive systems are important. They argue that employees must feel that their works are appreciated to support the organization and what it stands for. When doing so, the authors claim that the workers are more likely to remain active and enthusiastic, supporting the objectives of the organization. This can be seen as a support to the Kaplan and Norton's second barrier.

The third barrier of strategy implementation is the failure to link action programs and resource allocation to long term strategic priorities. Many organizations have separate processes for long term strategic planning and short term (annual) budgeting. The consequences may be that funding and capital allocations are unrelated to strategic

priorities. Major initiatives may be undertaken with inadequate sense of priority with regard to strategic impact. Monthly and quarterly reviews focus on explaining deviations between actual and budgeted operations, and not on whether progress is made towards strategic objectives. Ceelman (1998) argue that management information is tied to budget and accounts, instead of strategy. Thompson and Strickland (2001) argue that successful implementation of strategy requires that the resource allocation must follow the organization's strategy. They claim that the financial focus must emphasize both support of core activities with sufficient resources and reduce the support towards less important ones. By doing this, a link is created between the strategies and the resource allocation.

The final barrier is the lack of feedback on how the strategy is being implemented and whether it is working. The authors argue that most management systems of today provide feedback only on short term operational performance. They say that the bulk of this feedback is on financial measures, usually comparing actual results to monthly and quarterly budgets. Little or no time is spent on examining indicators of strategy implementation and success. The consequence is that the organizations have no way of getting feedback on their strategy, and without feedback they have no way to test and learn about their strategy. This is also pinpointed by Ceelman (1998). It concerns whether the organization has out-dated systems and only report on budget and accounting figures. The problem is that they do not report other central parameter for development of strategy drivers. Thomson and Strickland (2001) support this by arguing that incentive system must be connected to the strategy, where it is important to support values that sustain the organization's strategies. This is a critical success factor in order for succeed in implementing strategy changes.

One difference between Kaplan and Norton's (1996a, 2005a, 2005b), barriers and the other theorists is that Kaplan and Norton do not mention leadership style. This is one barrier addressed by Beer and Eisenstat (2000) that influences the implementation of a strategy. Furthermore, Thomson and Strickland (2001) argue that leader's involvement is important. The leadership style influences the culture, power, and politics, at the same time as they are responsible for the process. The BSC does not address leadership

motivation and trust. However, Kaplan and Norton (2001a) refer that the most important driver of success in strategy implementation is the top management leadership style, and not the tool itself. The authors argue that the leadership style has a larger effect than the analytical and structural strength of the tool. They motivate this by referring to experiences of leaders that have managed a successful BSC implementation emphasize communication as the largest challenge. These top managers understood that they could not get the strategy implemented without an extensive involvement from middle managers and other employees. Furthermore, the top manager did not know all steps that had to be enforced for a successful implementation. However, they held a clear opinion of how the success should be and the goals that had to be achieved. The top mangers depend on the employees to take part in making the vision operational and institutionalized (Kaplan and Norton, 2001a). Top managers' influence and trust will therefore be a critical assumption for BSC to work as a strategy implementation tool.

Finally, both Beer and Eisenstat (2000) and Thomson and Strickland (2001) address how the organizations cultures affect the strategy implementation. Bayer *et al.* (1997) directs focus on *how* the implementation is made has consequences for the result of the strategy implementation. As pointed out, Kaplan and Norton (1996a, 2005a, 2005b) do not have one similar implementation model.

# 2.1.6 Benefits and Outcomes of Implementing a Balanced Scorecard

In 1996, Kaplan and Norton argued that the BSC acts like as a new strategic management system. The system is expected to link an organization's long-term strategy with its short-term actions (Kaplan and Norton, 1996a). The BSC is discussed with respect to four critical management processes, namely clarify and translate vision and strategy, communicate and link strategic objectives and measures, plan, set targets, and align strategic initiatives, and enhance strategic feedback and learning. Mooraj *et al.* (1999) agree with Kaplan and Norton (1996a) that the BSC may serve as a strategic management system in an organization, and advocate further that the BSC in practice is a system,

which primarily encourages managers at all levels to make strategic decisions based on the company's common strategies.

In developing the BSC concept further, Kaplan and Norton (1996a), present out the benefits from using the BSC in organizations. They argue that the BSC can be used to:

- Clarify and gain consensus about strategy;
- Communicate strategy throughout the organization;
- Align departmental and personal goals to the strategy;
- Link strategic objectives to long-term targets and annual budgets;
- Identify and align strategic initiatives;
- Perform periodic and systematic strategic reviews;
- Obtain feedback to learn about and improve strategy.

Anthony and Govindarajan's (2001) definition of management control may be related to these statements. They describe management control as the process by which managers influence other members of the organization to implement the organization's strategies. They place management control in between strategy formulation and task control - see Figure 5. While strategy formulation focuses on long-term planning, task control includes short-term activities with a focus on current accurate data. According to Anthony and Govindarajan (2001), the BSC is a performance measurement system, which aims at implementing strategies. The BSC introduced by Kaplan and Norton primarily aims at supporting management control. Thus, the definition has broadened to include both the nature of the end product and the activity of management control. However, one may reflect upon the long-term and short-term control of the BSC. Although Kaplan and Norton do not describe how to put forth vision and long-term strategies, they argue that the organization should work with vision and strategies. One interpretation from their writing may be that an organization that wants to adopt the BSC must have reached a certain degree of maturity before it can be fully implemented. There must be a clear vision and explicit strategies before the BSC can be adopted (Speckbacher et al., 2003).

Widely defused, literature about the BSC has evolve over the last two decades divided into three dimensions of analysis, namely the *design*, the *implementation*, and the *use* dimension.

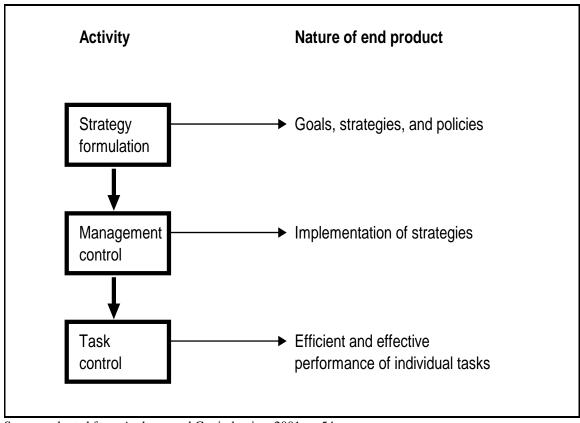


Figure 5 - Relation Between Planning and Control Functions

Source: adapted from Anthony and Govindarajan, 2001: p. 54.

The *design dimension* of the BSC deals with the content of the BSC. Kaplan and Norton (1992) suggest that the BSC framework should include four perspectives, which encompasses financial and non-financial measures and targets. The measures should be aligned to the company's vision and strategy (Kaplan and Norton, 1993). In practice, the content of the BSC is being adopted to the specific organization. For instance, in Swedish organizations it is popular to include a fifth perspective – employee perspective – as a complement to the model presented by Kaplan and Norton (1992).

The *implementation dimension* of the BSC deals with the building and introduction of the BSC. Kaplan and Norton (1993) propose an eight-step model for implementing the BSC

although they argue that each organization is unique and should follow its own path for building a BSC. However, empirical findings show that there are several difficulties in implementing a BSC, which are not highlighted by its advocates (Radnor and Lovell, 2003).

The use dimension of the BSC deals with the outcome of implementing the concept in terms of organizational effectiveness. Kanji (1998, 2003) and Kanji and Sá (2001, 2002) argues that the BSC is primarily used in two ways, namely as a new information system that helps managers to focus and as a strategic management system based on the criteria presented by Kaplan and Norton (1996a). Kald and Nilsson (2000) show that performance measurement systems are primarily used in decision-making at topmanagement level. Kennerley and Neely (2002) present a framework of factors affecting the evolution of performance measurement systems. All these studies deal with the period after the implementation when the BSC becomes an integrated part in the organization's day to day work. The relation between these dimensions can be understood by using a framework for understanding strategic change by Pettigrew and Whipp (1991). Their model is based on the basic assumption that strategic change should be considered as a continuous process, which is contextually dependent. The authors argue that there are three interrelated dimensions that need to be considered in order to understand strategic change. Firstly, the *content* of the strategy including goals, markets and products constitute the area in which the change takes place. Secondly, the process dimension deals with the change process and it's concerned with how the change was implemented. In this dimension, the content is being realized and formed (Pforsich, 2005). Thirdly, the context dimension deals with the surroundings in which the change takes place. These three dimensions are related in the sense that the context needs to be considered in order to understand the content and process dimensions and vice versa. The model can be used in studying changes other than only strategic changes, since the model highlights the complexity in general change initiatives.

Using the model on the analytical dimensions of BSC above shows that the content corresponds to the *design dimension* since it deals with the elements included in the BSC. The process corresponds to the *implementation dimension*. In the implementation phase

the BSC design is formed and integrated in the organization (Pineno and Cristine, 2003). The context dimension is primarily considered in the *use dimension*. This dimension deals with how the BSC design is being applied in work practice with respect to the existing structures, systems and processes in the organization. The use of the BSC depends very much on the implementation dimension, since the use reflects the outcome of the implementation of the BSC (Papalexandris *et al.*, 2004, 2005).

Table 1 - Different Dimensions of Analysis of the BSC

Activity	Focus	Quotations from the authors		
Design	Contents of a BSC	The balanced scorecard includes financial measures that tell the results of actions already taken. And it complements the financial measures with operational measures on customer satisfaction, internal processes, and the	The balanced scorecard is not a template that can be applied to businesses in general or even industrywide. Different market situations, product strategies, and competitive environments require different scorecards.	
		organization's innovation and improvement activities. (Kaplan and Norton, 1992)	(Kaplan and Norton, 1993)	
Implementation	Building and introducing a BSC	Each organization is unique and so follows its own path for building a balanced scorecard. Companies can follow a systematic development plan to create the balanced scorecard and encourage commitment to the scorecard among senior and mid-level managers. (Kaplan and Norton, 1993)	If the BSC is to be successfully implemented, it will need to be implemented at a number of levels within an organization because if it simply stays at the highest "strategic level" it will probably never be implemented in practice. (Radnor and Lovell, 2003)	
Use	Use of the BSC in daily activities	For some companies, the BSC seems to be no more than a new information system. For other companies, BSC s seem to be more This type of use comes close to the latter presentation of the BSC as a strategic management system. (Malmi, 2001)	For measurement systems to evolve effectively there are key capabilities that an organization must have in place i.e. effective processes; appropriate skills and human resources; appropriate culture; and flexible systems. (Kennerley and Neely, 2002)	

### 2.1.7 Criticisms and Limitations to the Usage of the Balanced Scorecard

No model can suit all companies and satisfy all critics, so the BSC has also been criticized and questioned. One of the critiques of BSC is Nørreklit (2000) that questions some parts of the BSC. One of the areas that Nørreklit analyses is the cause and effect chain which is a central part of the BSC. One of the problems with this as it is presented by Kaplan and Norton (1996a) is that there is no time dimension presented and therefore it seems like there is no time lag between the stages in the causal chain. Another thing that Nørreklit questions is the fact that Kaplan and Norton takes for granted that there is a relation between different measures. This is evident from the arguing that increased customer satisfaction leads to increased customer loyalty which automatically leads to improved financial performance (Kaplan and Norton, 1996a). When examining the sources this argument is based upon it is evident that it is not as easy as just saying increased customer loyalty will lead to increased financial performance, partly since the main source used to back this statement up is Radnor and Lovell (2003) who has a definition of customer loyalty which means that loyal customers are the ones that "involve low costs and give high prices" (Nørreklit, 2000: 73). If the arguments made by Kaplan and Norton (1996a) would prove to be wrong, that the causal chain does not in fact work as it is presented in theory, it could result in businesses working with measurements that will not improve their financial performance and hence create suboptimized organizational performance (Nørreklit, 2000). In another paper, Nørreklit (2003) argues that the BSC might belong to a genre called management guru texts that are characterized by talking to the emotions of the audience/readers, being persuasive and not consist of healthy argumentation. Another key feature of management guru texts are that the authors/creators often lean back on their own authority in order to back up their statements instead of putting forward more convincing evidence. With this in mind Nørreklit claims that Kaplan and Norton are not able to back up the results they claim an implementation of a BSC system has got and therefore the phenomena of BSC might be more built upon rethoric than convincing theories, therefore it might be right to categorize the BSC as a management guru phenomena (Nørreklit,2003).

There are also some threats to the success of the BSC, or at least issues that must be considered and dealt with so that it does not provide future problems for companies implementing the BSC. One of these threats concerns the declining worker participation. If the personnel in an organization is not prepared for, and informed about the process of change, extensive resistance toward the project can develop. The lingering dominance of the financial perspective is another of these threats. The danger in focusing too much on financial factors is that this can restrict focuslinked planning discussions, and that shortterm financial considerations can create a gap between strategy development and implementation. Too many measures can also be considered as another threat because of the risk of losing clarity. Defining an overdose of measures in the scorecard can make follow-up too complicated. In that case, clarity can be lost. Keeping the scorecard alive is also very important. The continuous maintenance of the BSC is essential. The risks of failure increase dramatically if the measures of the scorecard are considered fixed, or are not constantly reviewed (Kaplan and Norton, 1996b). The time aspect is also important. Change takes time - even if the creation of the BSC might just take a few months, it often takes several years before the whole process is established throughout the organization. Therefore, it is important for the management to be patient, and continue to work hard with the implementation (Venkatraman and Gering, 2000 and Sioncke, 2005).

#### 2.1.8 Conclusions and Review

The BSC is a performance measurement system that consists of a set of measures that enables the top management to get a fast but comprehensive view of the business. It is used for converting the strategy into action. The BSC includes financial measures that inform of the results of actions already taken. In addition, it complements the financial measures with operational measures on customer satisfaction, internal business processes and the organization's innovation and improvement activities – operational measures that are the drivers of future financial performance.

Although similar to other contemporary performance measurement systems the BSC has become very popular during the last years. A first reason might lie in the fact that the founders of the BSC promoted the new tool heavily in a way that was not done with other contemporary performance measurement techniques. Not only had Kaplan and Norton published widely (mainly in the Harvard Business Review, a magazine that is read by many practitioners), they also created the "Balanced Scorecard collaborative" (BSCOL). Following its mission statement as published on its homepage: "Balanced Scorecard Collaborative, Inc. is a new kind of professional services firm that facilitates the worldwide awareness, use, enhancement, and integrity of the Balanced Scorecard (BSC) as a value added management process". In this spirit, BSCOL organizes conferences on the tool of different kinds, offers training, publishes BSC reports, offers BSCOL certified software that supports the BSC and has even released standards for BSC applications. Moreover, companies that have implemented the BSC according to Kaplan and Norton's method can enter the BSCOL "Hall of Fame" and win an award, provided they achieved outstanding results using the BSC to become a strategy focused organization. Hence, Kaplan and Norton created a whole landscape of services around the new tool instead of concentrating on mere publications in scholarly and research journals as was done with other management control system. It seems relevant that the combination of David Norton being a consultant and Robert Kaplan being a Harvard Business School professor provided not only the necessary academic credibility but also the appropriate proximity to "the real world" to convince potential adopters. Furthermore, their professional skills and social status probably helped communicate and commercialize the tool to a broad public (Robert et al., 2004).

Another cause for the rapid dispersion of the tool is discussed in Nørreklit's (2003) paper where she analyzes the first chapter of Kaplan and Norton's BSC book, published in 1996. The findings of her paper indicate that the BSC is not particularly innovative from a theoretical viewpoint and lacks a reliable theoretical base. Its popularity could be rather explained by the successful use of communicative devices as often found with concepts propagated by management gurus. In her paper, Nørreklit demonstrates how stylistic

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<sup>&</sup>lt;sup>1</sup> Source: www.bscol.com, August 2008.

devices are used to create the impression of innovativeness and scientific grounding of the claimed BSC benefits. She also shows how a writing style similar to the Greek drama methodology helps to create and to keep the audience's interest, which knowingly not only consists of researchers but to a great extent also practitioners. Concluding her analysis, Nørreklit states that "...the results found in the present paper match those of other investigations of a number of texts produced by so-called management gurus...," (Nørreklit, 2003: 611) and "...it is not unreasonable to claim that The Balanced Scorecard belongs to the genre of the management guru text: a genre in which sound argumentation is not a prevalent feature, which by using certain stylistic devices and a composition that appeals to the emotions of the audience, persuades its audience to buy a new management theory, for instance" (Nørreklit, 2003: 611).

Table 2 - Characteristics of the BSC According to Kaplan and Norton

Performance measurement from	Learning and Growth, Customer, Internal Processes, Financial		
four perspectives			
Balanced set of indicators	Financial and non-financial indicators		
	Outcome measures and performance drivers (lag and lead indicators)		
	Short-term and long-term orientation		
Focus on strategy	Indicators should be deduced from strategy and thus help to implement		
	and measure strategy		
Avoidance of proliferation of	Use of a reasonable number of indicators by focusing on the		
indicators	strategically most critical ones		
Cause-and effect relationship	Non-financials and financials should be linked in a logical way so that		
·	non-financials can predict future financial performance		
Strategic management	Through communication and translation of the strategy into operational		
	goals, related feedback and business planning		

#### **CHAPTER 3**

### **Methodology and Research Process**

This chapter is dedicated to the methodology and research process that refers to the procedural framework within which this research is conducted. It describes an approach to a problem that can be put into practice in a research program or process, which could be formally defined as an operational framework within which the facts are placed so that their meaning may be seen more clearly (Ryan *et al.*, 2002). In other words, the method will be the tool used to retrieve new knowledge. How good the method is depends on how appropriate it is for solving the research problem, with its scope and limitations. In this chapter I will discuss my motivations for this work, the formulation of the research questions and my decisions regarding the choice of research method used. I also explain what choices I have made and what actions I have taken to be able to answer the research questions.

# 3.1 Purpose and Motivation

My interest in studying the BSC, in practice, was triggered, by the fact that in January 2003 I was invited to assume over the administrative and financial responsibilities of the subsidiary of Alpharma in Portugal. The idea of belonging to a pharmaceutical group that had repositioned all its activities in the previous three years and was at the time prepared to lead the incipient generics market in Portugal was an important incentive for me to accept this career challenge.

If I remember correctly, along with this motivation, there was the question as to why the company's board had decided to radically change its strategic business vision, ceasing to market branded and patented products, and prepare to sell generics. In other words, I wondered what management tool had made it possible to convert the company's mission and strategy into new goals that were so different from its traditional ones.

After joining the company, I naturally realised that the implementation of the BSC in 1999 had acted as a catalyst, leading to the acceptance of more aggressive targets at several different levels of the company in order to improve a whole set of indicators and not just the current financial figures. However, having figured it out the answered this first question, another deeper one arose that deserved some more thought: Why did the Alpharma decide to stop using the BSC three years after the implementation of this management tool if it had achieved such exceptional results that were still clearly visible today? Although there are several arguments that could have been used to answer this question, I was never actually able to understand the reason for this decision.

Some years later, in 2006, while attending to some the remarkable *Accounting and Management Control* and *Cost Management Systems* class lectured by Professor Maria João Major, during my coursework of the MsC in Accounting, the discussions over the BSC were only able to arouse my curiosity about the above situation.

Therefore, the purpose and motivation of this study is the increase of the understanding of how the BSC is used in the commercial organization of major pharmaceutical company in Portugal. Understanding the use of the BSC involves the gathering of knowledge on how it was designed, implemented, used and later on abandoned in the organization. In this study, the design of the BSC corresponds to one first part of description and investigates what the system does and why. The design includes the description of the contents of the BSC in the organization, what the BSC emphasizes and why the BSC points to the things it does. For instance, the perspectives in the BSC and why these perspectives were chosen in the organization are illuminated. The implementation of the BSC reflects a part of the description and focuses on how the BSC was transformed and evolved in the organization. The choices of BSC representations are illuminated through describing how the BSC was built, deployed and disseminated throughout the organization. The study of the implementation reflects a historical aspect of an organization, and is a useful consideration in understanding the final results of BSC in this organization. The use of the BSC focuses on the physical realization of the system in the organization and thus represents the third part of this description. The use

dimension explores activities, such as documentation of measurements, reconstruction of strategy, reporting of results and communication within units, dissemination of information, and strategic planning all related to the BSC realization. Thus, the use dimension focuses on how people made use of the BSC in their day-to-day practices. The *abandon* of the BSC represents the fourth part of this description, detailing the reasons why the tool was abandoned, mentioning the events leading to this decision.

### 3.2 Research Questions

Having explained the context and motivation, my goal is to research the implementation, use and discontinuation of the BSC at Alpharma ApS, Portugal as the main topic of my dissertation. More than the stages described above, which in themselves constitute a substantial scientific work, I propose to assess the efficiency of the BSC as a tool in helping make strategic decisions at the company.

In my research, I will design a work methodology aiming to finding an unequivocal answer to the following research questions:

### How was the BSC implemented in Alpharma?

This is the naturally the main purpose of the dissertation. Other complementary questions will have to be answered in order to substantiate the answer to this one:

- Why did Alpharama adopt the BSC?
- What main difficulties were encountered during implementation?
- What difficulties were encountered in using it?

The first expected use of the BSC as a management tool is a reflection of the company's vision and strategies in relation to a set of goals and indicators, and so another research question arises:

## Did the BSC help the company in its strategic decisions?

What I wish to assess with this research is not only the quality of the decision, but also the efficiency of the usage of the BSC in the company managers' decision-making processes, regardless of their assertiveness.

### 3.3 Time Horizons

This study and the replies to the research questions will be well delimited in time, and merely corresponds to the period of time since 1999 and 2003. The time perspective that I will use in this dissertation is defined as retrospective or longitudinal. The main strength of this perspective is the capacity it has to study change and development. The use of longitudinal research by observing over time enables the researcher to exercise a measure of control over variables being studied, provided that they are not affected by the research process itself. In this particular study, I will not be able to submit any kind of influence over any variable because I will be focussing in a past event.

### 3.4 Research Strategy

Being the purpose of the dissertation clearly identified, the determination of the most suitable research strategy imposes. Due to the interpretive character of the research with focus on understanding as well as my personal interest, a qualitative research strategy was selected. According to Denzin and Lincoln (2002:3)"...qualitative researchers study things in their natural settings, attempting to make sense of, or to interpret, phenomena in terms of the meanings people bring to them".

Since this study aims to explore and explain a contemporary phenomenon in a real life setting, within which I, as researcher, have no ability to control, the case study strategy was selected as a research strategy (Yin, 2003). According to Stake (1994) the case study should be selected with respect to what can be learned. The researcher should choose cases from which he or she believes they can learn the most. Based on this statement and the following criteria I selected the full organization of the subsidiary of Alpharma in Portugal as a case for the present research study: The design of the BSC in the organization includes financial and non financial measures that are derived from a vision and strategy and are categorized into perspectives derived from the original four

presented by Kaplan and Norton (1992); The BSC was implemented and used in the organization; The investigator has access to information needed to collect case study data.

The first criterion concerns the fact that the organization has really implemented a BSC. According to the advocates, the original framework of the BSC proposed by Kaplan and Norton (1992) contains four perspectives encompassing goals and measures. Since the BSC in practice is being changed and adapted to the organization's conditions, the original framework has been used in judging if the organization has implemented a BSC or not. According to Malmi (2001), for a measurement system to be a BSC, it should contain financial and non-financial measures, which should be derived from strategy and the measurement framework should contain perspectives derived from the original four. Thus, the number of perspectives does not matter, but should be derived from the original framework. The second criterion concerns the implementation process. How does one know that the BSC is fully implemented in the organization? Kaplan and Norton (1996b) suggests that it takes about 25-26 months for a company to make the BSC a routine part of the management process. However, the time schedule depends very much on the organization's background, history and current situation. Therefore, in this case some employees of Alpharma in Portugal were questioned about the implementation of the BSC. In addition, managers in the organization were asked if they made use of the BSC in their work. According to Yin (2003), there is a potential risk in conducting a case study that a case may turn out not to be the case it was thought to be from the beginning. Therefore, the case needs to be carefully investigated beforehand to prevent misrepresentations and to maximize the access to the field. Thus, the third criterion for selecting a case is that the investigator has access to information.

As I selected a case study strategy I formulated my research questions to capture the reality of the full organization. The unit of analysis was thereby defined as Alpharma in Portugal as a whole. Figure 6 illustrates the different types of case studies categorized by Yin (2003). Type 1 focuses on a single-case, and has a single unit of analysis. Type 2 is an embedded single case study, in which the analysis of the case includes the outcome of

the sub-units. Type 3 involves multiple cases, which are analyzed from a holistic viewpoint respectively. Type 4 focuses on the analysis of multiple cases through the outcome of sub-units of analysis within each case.

The unit of analysis in this study is thus defined as a Type 1 referring to Alpharma in Portugal.

Figure 6 - Different Types of Design for Case Studies

	Single-case	Multiple-case
Holistic	TYPE 1	TYPE 3
Embedded	TYPE 2	TYPE 4

Source: Yin, 2003: p. 39.

# 3.4.1 Scientific Approach

It is common to divide research strategies into two principal scientific approaches: the positivistic and the hermeneutic. These two doctrines represent two different perspectives, which mean they yield different scientific.

The concept of positivism reflects a desire to draw conclusions based on empirically determined knowledge. It implies that the researcher is working with an observable social reality and that the end product of such research can be the derivation of laws or law-like generalisations similar to those produced by the physical and natural scientists (Ryan *et al.*, 2002). This approach sees only knowledge that can be measured as true and proper, and it is extremely important to separate fact from opinion. The other main theoretical approach, the hermeneutic, focuses on understanding the entirety and interpretation of events. For this reason the hermeneutic approach is often considered as the opposite of positivism. Unlike the positivist, the hermeneutic does not consider the world to consist of an objective reality but instead focuses on subjective consciousness. Each situation is seen as unique and its meaning is a function of the circumstances and the individuals involved.

In this work, I will be more focused towards the hermeneutic approach. The reason is that I am going to conduct research based on my interpretations of the reality and the phenomenon on study. There will be no measurable "truth" to my research, since it is a study where human beings behaviour and social constructions will create the base for my conclusions. Hence, there is no scientific truth to the answers this study will produce. Each situation will be analysed as unique and its meaning is will be generated by the circumstances and the individuals involved. It will be biased with my opinions, the characteristics of the companies studied, and the individuals interviewed. The conclusions of this dissertation are thereby not automatically true for all organisations, but can serve as pedagogical tools used to change the reader's awareness and inspire changes.

# 3.4.2 Research Approach

Depending on the purpose of the study, how well the problem is structured, and how well the problem is known, researchers have to choose a research approach. The four main research approaches are the exploratory, explanatory, descriptive and the predictive (Ryan *et al.*, 2002).

In this dissertation, most of the research is done with an exploratory approach since the knowledge management topic is very broad, and I had to adjust for company characteristics as my research proceeds. Off course, my newly found insights might demand revision of the research problem and conclusions, as I continue in the research. This is important since I am trying to answer a couple of questions on the BSC - to be accurate, I might need to revise my attempts to solve this as my knowledge grows in the subject. A descriptive approach is used when researchers try to document or map the phenomenon in question. In this dissertation, I am also using this approach, since I am are trying to clarify the parts of the knowledge management concept used in this dissertation plus describe the BSC tool to prepare the reader for deeper understanding of my conclusions. Research with an explanatory approach often tries to explain the forces causing the phenomenon in question. It also tries to identify plausible causal networks shaping the phenomenon (Ryan et al., 2002). Hence, it is trying to study cause and effect. Since in this dissertation I have no hypothesis in the beginning that I might try to falsify or any other cause and effect I want established, I do not use the explanatory approach. Finally, in this research I will probably speculate on future development in the subject area, but it involves no predictive approach.

# 3.5 Data Collection

Collecting and processing information can be done in two separate ways, either by the quantitative or by the qualitative method. By the quantitative research method, data is collected in numbers from which statistical calculations and conclusions are drawn. This method is often used when large populations are analysed. The qualitative method, on the other hand, penetrates every observation in a deeper way, focusing upon variables that are harder to classify and quantify. The main purpose of qualitative research is to obtain a more profound knowledge than the fragmented information generated by quantitative

methods. This work is of a more qualitative character, which is derived from the use of a hermeneutic scientific approach. I am mainly going to analyse one company, representing one business, which will present me with an opportunity to draw in-depth conclusions. This also implies that it is important for me to get extensive access to the company analysed in order to develop a deeper understanding – this being a satisfied premise, since I am an employee of the company, although not participating in the process in study. It is the chosen company subjective image of this study that I am interested in – naturally it is virtually impossible possible to translate this image into numeric variables. Thereby, it is only natural that this research takes the form of a qualitative one. In trying to understand the phenomenon in studying, one must be flexible to the situation at hand and the respondents interviewed. This also implies that I am searching for more qualitative information. However, I am aware of the fact that this might lead to fewer general conclusions being made.

There are numerous approaches to the task of gathering data needed in the examination of a problem. A common distinction is made between two different types of data, namely primary data, which consists of information collected through direct examination; and secondary data, which includes earlier examinations, existing statistics, literature, and articles. In this work, both primary and secondary data will be used. Off course that for determine the research questions, I started by collecting secondary data. Since the BSC concept is used differently in different companies, it was important to start the research by creating a basic understanding of it. The BSC tool is fairly well defined, but as well patent in the previous chapter, I've searched for most recent literature and articles in academically reviewed journals in order to pick up the latest discussions on the subject. The primary data collected has the characteristics of information directly suited to my research. Through the understanding and knowledge obtained during the collecting of secondary data, I was able to shape the understanding of the information needed to collect. The primary data was mainly acquired by conducting personal interviews and letter inquiries with employees at Alpharma.

#### 3.5.1 Interviews

While working with interviews, as the information gathering method, I have considered two aspects. First, how much I, as researcher, control the design and the relative order of the questions asked. This is off course called the standardisation of the interview. Second, I considered the possibility for the respondents to interpret the questions and the boundaries that restrict their answers.

The interviews that were conducted in my research are in the form of qualitative interviews. This method is characterised by the researcher and the respondent having a discussion, where the researcher controls the topic discussed, but also that the respondent has the opportunity to affect the direction of the interview. The advantage of conducting such an interview is that it provides opportunity for the researcher and the respondent to discuss complex and unstructured issues that are hard to cover with other methods. It is important to remember, however, that in the discussions that took place during the interviews, the respondents were able to explain aspects of the subject that they feel are important. This is also a vital part of my research, but hard to foresee, and therefore hard to display in an interviews preparation. To be able to collect as many and as detailed answers as possible, I've tried to motivate and prepare my respondents. This was done by explaining the purpose of the study and by sending them some information in advance of what the interview will cover. I've further explained that I was not going to present the individual respondent's exact answers, but only present my interpretation of the answers and other material received and collected. There is also a negative aspect to this procedure, and that is that I might have affected the respondent into giving me the answers that he or she believes that I wanted it. I've believe I tried avoid this as much as possible by only giving the respondents general information, and asking the detailed questions at the interview. At the interview, I tried to avoid indistinct, but also leading questions, by asking more general questions first, to get the respondents relaxed and to be able to get a better overview and background before asking the more detailed questions. The interviews were performed at the respondents office and taped (when possible and authorised) and then rewritten with the help of notes taken during the interview and the play back of the tape when possible at the end of the day, so that I was able to go back and read the interviews again for a better interpretation and to be able to put the answers into a context, where I should be able to understand the big pictures.

Table 3 - Interviews with Employees at Alpharma

Date	Title	Position	Department	Taped	Duration
12-Set-07	Country Manager	Managers	Administration	Yes	1:33:00
14-Set-07	Business Development Manager	Managers	Sales & Marketing	No	1:25:00
15-Set-07	Marketing Manager	Managers	Sales & Marketing	No	1:10:00
18-Set-07	Regulatory Manager	Managers	Regulatory	Yes	1:00:00
19-Set-07	Sales & Marketing Manager	Managers	Sales & Marketing	Yes	0:56:00
28-Set-07	Sales Manager (Branded Products)	Middle Management	Sales & Marketing	Yes	1:20:00
1-Out-07	Sales Manager (OTC Products)	Middle Management	Sales & Marketing	No	1:20:00
8-Out-07	Finance Manager	Managers	Finance	No	1:50:00
12-Out-07	Human Resources Manager	Managers	Human Resources	Yes	1:00:00
29-Out-07	Finance Controller	Middle Management	Finance	No	1:15:00
2-Nov-07	Accountant Responsible	Middle Management	Finance	Yes	1:10:00
15-Nov-07	Regulatory Manager	Middle Management	Sales & Marketing	No	1:50:00
19-Nov-07	Product Manager	Middle Management	Sales & Marketing	Yes	1:10:00
28-Nov-07	Product Manager	Middle Management	Sales & Marketing	No	1:40:00
6-Dez-07	Logistic Manager	Middle Management	Finance	Yes	1:30:00
11-Dez-07	Area Sales Manager (Division N)	Middle Management	Sales & Marketing	Yes	1:10:00
12-Dez-07	Area Sales Manager (Division C)	Middle Management	Sales & Marketing	No	1:15:00
11-Fev-08	Area Sales Manager (Division S)	Middle Management	Sales & Marketing	No	1:20:00
14-Fev-08	Human Resources Assistant	Operational	Human Resources	No	0:40:00
18-Fev-08	Accountant Assistant	Operational	Finance	Yes	0:45:00
20-Fev-08	Senior Sales REP	Operational	Sales & Marketing	Yes	1:10:00
21-Fev-08	Senior Sales REP	Operational	Sales & Marketing	No	0:55:00
25-Fev-08	Sales REP Assistant	Operational	Sales & Marketing	No	0:40:00
30-Mar-08	Country Manager	Managers	Administration	Yes	1:55:00
Total Time of Interviews					

The case study presented in this dissertation is based on 24 semi-structurated interviews with fifteen employees of Alpharma and one interview with the consultants Phizz Rx - Pharmaceutical Consulting that help in the implementation of the BSC. The interviews were conducted from September 2007 to March 2008 and lasted about 1-1.5 hours each, adding up to a grand total of 30 hours invested in this process. The interviewees were selected on the basis of the person's position in the organization, and the person's profession (see Table 3).

This selection was intended to enhance the ability to analyze the data from different frameworks and to receive different views on the use of the BSC. In addition, the interviewees were selected on the basis that they had been working in the organization since the introduction of the BSC in 1999 and had an active participation in the implementation and usage of this tools.

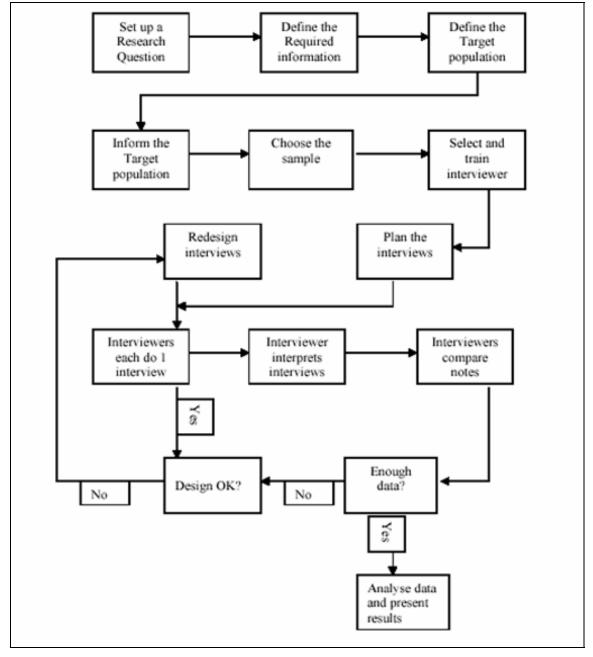


Figure 7 - Convergent Interviewing Process

Source: Dick, 1990: p. 36.

Around 62% of the interviewees belonged to the Sales & Marketing department, the most representative department within the company, while the employees from the Finance

department represented 22% of the interviews. The remaining interviewees belonged to the other company departments. To avoid misunderstanding and to reduce the fear of the respondents that their answers would be misinterpreted, I've let the respondents, mainly the top managers, read resume of their interview, whenever required by them, discussing potential changes and explained my position in the different interpretations with the respondent. I now believe that through co-operation with the respondent I was able to present a better understanding of what they really meant, and therefore increase the credibility in this work.

It is also important to state that I have used Figure 7 as a guide for the development of the interview schedule and analysis of the interviews at each stage of data collection. According to Yin (2003) the first step in convergent interviewing is to set up the exploratory research questions, similar to those presented in section 3.2. The second step involves identifying the information needed from the target population. The target population being, as mentioned before, the employees that participated in the implementation and usage of the BSC.

#### 3.5.2 Documentation

According to Yin (2003) documents play an important role in data collection in case studies, which can provide the researcher with corroborating information for the evidence selected. The documents can also generate new insights and inferences, which can lead to new lines of inquiry.

Before the interviews began, I started to collect documents of interest for the study. This task was particularly easy because of the received authorization to conduct this research by the local management (document included as an appendix 1 to the dissertation) and being myself a company employee. In the planning of interviews, an introduction folder including a list of employees at the department, the department's vision and mission statement, and work design was used to select interviewees and to receive an understanding of the department's work practice. The most important documentation has

been the representations of the scorecard in the organization. These have been used as artifacts in interview situations to focus the discussion and clarify any obscurities. Other documents used in the case study were the local annual accounts and several other local and international documentation on the BSC implementation.

## 3.5.3 Collecting Data

I started to plan the data collection as the interviews began, in order to corroborate the information gather during this interviews. The interviews showed that the BSC was used during management meetings, and therefore I chose to recover the conclusions from those meetings occurred in 2000 and 2001. This process help to evaluate and to reconsider the value of those same interviews. First because of the time gap and secondly because the observations aimed to validate the results from the interviews it self, by confirming peoples perceptions of the BSC. Thus, this task was not aimed to generate new knowledge concerning the meaning of peoples' perceptions of the use of the BSC by only to validate their interviews (Lohman *et al.*, 2004)

This task helped me triangulate and validate information, but naturally I chose to focus my efforts on the interviews and data collection.

### 3.6 Negotiation Access and Research Ethics

There are many problems and difficulties that can arise when trying to collect empirical data in a research study. According to many management and organizational researchers it is more likely that one will gain access where one is able to use existing contacts. This is also the case in this work, where I, as a company employee, had almost full access to the needed data.

Having stated that, it's also important to clarify that the information needed for this work could only be handed out by a limited number of people, whose often are hard to reach – this has cause me some problems concerning the collection of data. Furthermore, it is not

for sure that the company is willing to give away all information. However, when this situation presents it self, perhaps a negotiation can result in some kind of agreement where the data can be handed out. As mentioned before, in this work after receiving an explicit authorization to conduct this research by the local management, my difficulties were purely circumstantial.

On what concerns the ethical point of view when collecting empirical data there are numerous codes and checklists to use. This study does not follow any specific code or checklist concerning this issue. Instead I've use some common sense that played the mediating role. The company has had internationally a long relationship numerous Universities, mainly in North European countries. Since the beginning, I've tried to show what an honour it is to cooperate with such a company by doing a good job and respect the company willingness of giving out information and the secrecy of it. By doing so I fell that that the relationship between the company and I (as an investigator and as an employee) will continue even after the end of this study.

# 3.7 Data Analysis

Credibility is important to all types of research. The issue of credibility refers to being able to demonstrate that the research was designed in a manner that accurately identifies and describes the phenomenon to be investigated (Ryan *et al.*, 2002). In order to reach credibility in a qualitative study, issues concerning validity and reliability should be described. It is difficult in this type of study to reach a commonly agreed "truth", but a main concern is to present the research so that it could be perceived as credible to the reader. Since there is no universal "truth" to this research, I have tried to reach credibility by, as openly as possible, showing how I pursued this research. I have tried to show the path of my research and describe the ways I have taken to reach the conclusions.

Finally, I will try to account for my opinion of this research's validity and reliability below.

## 3.7.1 Analyzing the Data

In order to make the material accessible to others the interviews were reprinted in full, as I mentioned before. The reprinted material was also useful in the later stage of the analysis since I could go back to the source of information if any ambiguity arose. I started to analyze the material by reading through each interview, marking important aspects that the interviewee had emphasized, and writing down my initial thoughts about how the interviewee perceived the BSC. Thereafter, I summarized the interview based on the markings in the interview in order to reduce the text mass. The markings in the source interview were referred to in the summary in order to be able to trace back to the source if necessary. My own initial interpretations were used in a later stage of the analysis.

Since the scorecard documents and other gathered documentation were used during the interviews, these were reviewed and analyzed as the interviews commenced. Vision, strategic goals, critical success factors, goals, measures, targets, and action plan were identified as factors included in a BSC in literature, and I used these factors to review the documents. Since the documents were used during the interviews, I complemented my own review with the interviewees' stories in order to conduct further analysis. I could then critically review the material by emphasizing differences between my own presentation based on theory and literature, and the comments from the interviewees. In other words I've triangulated the information, checking it thru the several, available sources - this continuously reviews enabled me to confirm the interviewees' stories (Modell, 2005).

## 3.7.2 Validity and Reliability

In this research the validity will be affected by how sensitively and effectively I was able to collected and interpret evidence. This means that I was particularly thorough when defining interview questions and to explain the purpose with the interview in order to avoid misunderstandings and misinterpretation.

As a researcher, it is also my goal to establish a quality relationship with the investigated company to be able to get the best kind of information and support. A best way I found to ensure this was to present useful and adequate conclusions that could improve the companies' knowledge in this area. In addition, it is also very important for the validity of this work to disclose all information about the research process so that the reader could shape his own opinion about how the evidence was collected and the interpretations made. This is how I try to provide the reader with the ability to question the quality of the arguments in the interpretations and conclusions drawn in this study.

On what the reliability is concern, one might take into considerations that employees in the interviewed positions have quit or had to change jobs and there might have been new research published, changing conceptions about the BSC and knowledge management. Therefore, my best effort to ensure reliability was to follow good practice guidelines such as establishing an audit trail (Ryan *et al.*, 2002).

#### **CHAPTER 4**

# The BSC in a Pharmaceutical Company

This chapter aims to give the full scope of the empirical study conducted in the dissertation and its major conclusions. After an introduction to the company's and case unit's history, development and products, I will highlight some elements of the organizational culture experienced in the case unit of interest as related to the company's history and present. By doing this, I hope to better illustrate the understanding of the subsequent story about the BSC adoption, usage and abandon in the company, giving a description as rich as necessary to make the case credible.

# 4.1 The Company

Alpharma Inc. (NYSE: ALO) is a global pharmaceutical company with leadership positions in products for humans and animals. Thru its corporate values, the company is committed to creating value for customers, partners and investors by leveraging the knowledge and resources to drive growth-oriented innovation. With nearly 1,400 employees and revenues of \$654 million, Alpharma is active in more than 27 countries around the world. Founded in Norway in 1903, Alpharma is currently positioned for growth in all businesses segments that actively operates. Alpharma is dedicated to becoming a leader in specialty pharmaceuticals by serving the evolving needs of its customers, by providing best-in-class customer service through innovative partnerships, technologies and processes. Alpharma has been focused on seizing opportunities and delivering results by harnessing the power of constructive change. It's all part of its continuing commitment to growth through increased performance. Alpharma was been established in Portugal in 1968, when it launched its first product, Permadoze, which is currently the market leader in its therapeutic area. By 2005, Alpharma was marketing 37 generic products in a variety of therapeutic areas, which currently represents about 75% of its total net income of EUR 19 million.

# 4.1.1The Story of Alpharma

The story of Alpharma is a saga of international entrepreneurship. It is the story of a small Norwegian industrial company that achieved success by globalizing its business. Organic growth and the acquisition of complementary companies, a willingness to take risks and the company's particular know-how have been crucial elements in its strategy for success.

Every story begins somewhere, and the story of Alpharma's internationalisation began in 1903, when a group of Norwegian pharmacists formed the *A/S Apothekernes Laboratorium for Specialpræparater* (Alpharma). This company embodied its founders' desire to take part in the industrialization of pharmaceutical production, which was taking its first fledging steps in several countries. Their primary aim was to create a Norwegian pharmaceutical company that could control a large part of the growing market for manufactured drugs.

Alpharma grew rapidly as a manufacturer of pharmaceutical products and, in the years leading up to World War I, production increased to the point where the company had to change facilities several times. Having managed fairly well during the years following World War I and through the economic crises of the 1920s, the company began to experience major financial problems in the 1930s. It was then that the first operational and financial reorganisation took place. New managers were hired who were able to put the company back on the right track before World War II broke out.

In 1939, Alpharma began to manufacture bandages and adhesive plasters, products that the Norwegian authorities at the time considered of vital importance to the war effort. The modern history of Alpharma begins at the end of World War II. The company's ambition was to establish a manufacturing company dedicated primarily to antibiotics, mainly penicillin. At the beginning of the 1950s, the company achieved its aim by adopting and relying on American technology. However, the main product ended up not being penicillin, but rather another antibiotic, bacitracin, first as a medicinal product for

human use and later as an additive in animal feeds. In a short time, bacitracin became very important for the company and it turned out to be one of its most successful products, transforming Alpharma into an international company. The production of antibiotics is a capital-intensive manufacturing industry that requires a large market. The potential market in a country like Norway was far from being large enough. At the same time that exports were growing significantly, operating capital needs were growing too. For this reason a subsidiary company was created in Switzerland in 1959. The new company was called Nopal Alpharma International AG and it was designed to secure financing for Alpharma's exports through Swiss banks. Along with producing antibiotics and in line with the aim of forming a broader business base for the company, in 1946 Alpharma began manufacturing, importing and distributing pesticides for Norwegian agriculture. The business expanded, and one year later the company created a unit dedicated to the sale of branded products in supermarkets. With the acquisition of various brands of food products, this business segment grew so quickly that, even today, Alpharma continues to be one of the largest independent manufacturers of food products in Norway. But antibiotics, bacitracin in particular, were still the most important products in Alpharma's internationalisation process. By the end of the 1960s, the company had become the largest manufacturer of bacitracin in the world, selling this product to the pharmaceutical industries of various countries. This strategy would later serve as the foundation for expansion into the USA and into other parts of the world, allowing acquisition of a number of factories and thereby increasing installed productive capacity.

In 1983, Alpharma made its most significant acquisition to date, acquiring its biggest competitor, the Danish company A/S Dumex. This company had production facilities in Denmark and a solid antibiotics export business. The transaction was financed through loans and carried out by Alpharma. The purchase of Dumex was financed by a public offer of shares of Alpharma in New York in 1984. Class A shares of Alpharma were listed on the American Stock Exchange (AMEX): unlisted class B shares were, and still are, all held by the Norwegian parent company. It was perhaps the first time an American subsidiary of the European organisation was listed in New York. The transaction revolutionized the company – having an American public subsidiary allowed Alpharma

access to the largest capital market in the world. This would become extremely important for financing later expansion. In Norway, the cultivation and harvesting of fish was an industry in frank expansion in the 1980s. In cooperation with Norwegian research groups, Alpharma developed vaccines for farmed fish and set up a production facility in Tromsø, in northern Norway, competing on the jobs market for labor, which was scarce in the region due to important petroleum and fishing industries. The pioneering efforts of the company were successful and, in 1989, Alpharma acquired the largest North American manufacturer of fish vaccines, Biomed, Inc. The investments and efforts made by Alpharma technicians in research and development led to international scientific recognition of its animal health business, making it one of the most noteworthy units within the company.

In 1987, Alpharma enter into a new business segment by acquiring the US company Barre-National, Inc., the largest manufacturer in the US, and possibly the world, of liquid generic pharmaceuticals. This entry into the generics market was strengthened a year later with yet another acquisition: the US pharmaceutical company NMC Laboratories, Inc., which specialised in generic medicinal ointments and creams. In the 1990s, Alpharma acquired a number of other companies. In the animal health sector, the company bought the rights to several additives for feed, antibiotics and anticoccidians. Production facilities in the US were also purchased. In the medicinal products for human use sector, two large companies were acquired, one in Great Britain and the other in Germany, to which was added a small French generics-producing company which controlled a fermentation factory in Budapest.

In May of 2000, Alpharma acquired Roche's Medicinal Feed Additives business, which manufactured pharmaceuticals for meat production animals. North America was its primary market, but the products were also sold in Europe and Asia. After the acquisition, the business was expanded and Alpharma's volume of feed additives was tripled. In 2001, Alpharma acquired the American company, Purepac Pharmaceutical Co. Ltd., owned by Australian company F. H. Faulding. Purepac manufactured generics in tablet and capsule form for the North American market. This take-over was strategically

important, as tablets and capsules are the biggest segment of the pharmaceutical sector. Thus, a certain symmetry between the international and North American pharmaceutical businesses was established. The acquisition included a generics pharmaceutical company in China and a special technology for formulating extended release products. The technology was used in a long acting morphine product, Kadian, which the company currently produces and markets in the US.

Figure 8 - Alpharma Organizational Development



Source: www.alpharma.com.

When Alpharma celebrated its centennial in 2003, it was the epitome of a successful pharmaceutical company, listed on the New York Stock Exchange (NYSE), with three distinct and independent business segments (human health, animal health and production of antibiotics in raw material form) and one of the fastest growth rates in the market. The three business segments were supported by financial, legal, human resources and computer system operations with global responsibilities cutting across the entire organisation. This global organisation, which develops, manufactures and sells over 500 pharmaceutical specialties, was generating income on the order of USD 4,300 million and had 4,700 employees in 27 countries and production facilities in seven different countries. At the time of its centennial, Alpharma was one of the largest organisations worldwide in the sector, and the prospects for continued growth and development were excellent.

In 2005, Alpharma was the third largest manufacturer of generic drugs in all pharmaceutical forms. In the US, the company was the principal manufacturer of generic liquids, ointments and creams. In the same year, the company started to take advantage of its research and development skills when it began to market a product for pain in terminally ill patients, Kadian, which became the best-selling product in the US for this therapeutic indication in the year it was launched. In that year alone, this product represented a consolidated income of about USD 400 millions.

Despite its humble start, for over one hundred years Alpharma has been developing technology and manufacturing and marketing pharmaceutical products while at the same time generating wealth. Taking risks has been an important part of the company culture. This strategy was based in large part on investments and acquisitions of complementary factories, business and products that were financed primarily by loans. As a result, all the Alpharma Group companies have relatively high levels of debt. In addition, the need for units to become more and more competitive created incentives early on to implement internal control systems, hence the *Balanced Scorecard*.

In appendix 2, I've attached a corporate presentation that illustrates the evolution time line of Alpharma.

# 4.1.2 Alpharma in Portugal

As it was mentioned before, the company has been established in Portugal since 1968, when it launched its first product, Permadoze, which is currently the market leader in its therapeutic area. The Portuguese organisation became a part of the Alpharma Group in 1983, around the time that the Danish company A/S Dumex was acquired. During the 1980s and 1990s, the company solidified its presence on the Portuguese market with the promotion and sale of various pharmaceutical specialties, among which Decubal (for dermatology) and Permadoze (for osteoporosis) stand out. These two products, market leaders with relatively high sales margins, allowed Alpharma to solidify its business in Portugal.

In 1999, the company had an income of EUR 7 million, of which 75% came directly from these two main products. From its inception, the Alpharma organizational structure in Portugal assumed a clearly commercial stance, with approximately 80% of its then 74 employees linked directly to the Marketing and Sales Department. This was considered its core business, as research, development and production were not being carried out in this country. Assisting the Sales and Marketing department were five other departments providing support to the company's business activities. These were the Financial, Legal, Human Resources, Computer Systems and Regulatory departments. Each of these departments, hierarchically reporting to the general management in Portugal, cooperated in its functions with the respective international departments. Although the company held a well established position in the Portuguese market, with a significant market share (in the therapeutic areas in which it operates) and an enviable degree of financial-economic health, by the end of the 1990s, the Portuguese organization was frankly out of step with the Alpharma Group's international strategy. That is, the business was not very diversified; it was based on high margin products, but ones that had been on the market

for two decades and thus highly vulnerable to being overtaken by alternative therapies. Added to this was the fact that the company in Portugal had not been able to create business opportunities for launching the divisions of animal health and sale of antibiotics as raw materials.

The implementation of the *Balanced Scorecard* (BSC) in 1999/2000 would set the company on a completely different course, dropping its emphasis on selling branded and patented products in order to prepare for the sale of generic products, a business segment which was then taking its first steps in Portugal. Implementation of the BSC acted as a catalyst, facilitating acceptance, at all levels of the company, of more challenging goals, with the aim of achieving better performance on an integrated set of indicators rather than improving financial indicators alone. In other words, the BSC made it possible to translate and give form to the company's mission and strategy by setting new objectives, redefining the business and strategically investing in the generic medicinal products market, aligning itself with the Alpharma Group's international strategy.

In June 1999, Alpharma Portugal's General Management gave form to the company's mission in an attractive and effective slogan, "Accessible Medicine". Thus the company made a commitment to making medicinal products more accessible to the great majority of the population by providing more economical, quality therapeutic solutions via the sale of generic medicinal products. But this concept of accessibility was even broader, encompassing health care professionals (responsible for prescribing the medicine) and consumers, by making a wide and varied range of quality products available, at a lower cost, with more comprehensible information and more relevant support services (for both patients and doctors).

By embracing this strategic mission and declaring its intent to market generic medications in Portugal at a time when the segment was worth about 0.001% of the total value of the pharmaceutical market, Alpharma gained a certain notoriety to the point that its Country manager and regulatory manager were invited to participate in a parliamentary working group. The group's work led to the drawing up of Law 14/2000,

of 8 August 2000, the first legislative document to regulate and provide incentives for the production, sale and consumption of these products. The company's change of course, which turned out to be a winning bet, was concretized by five new generic products that were introduced on the market in January of 2000. Alpharma was the second company to market generic products in Portugal and is a founding member of the *Associação Portuguesa de Genéricos* (APOGEN – Portuguese Generics Association), an organization designed to promote generic products.

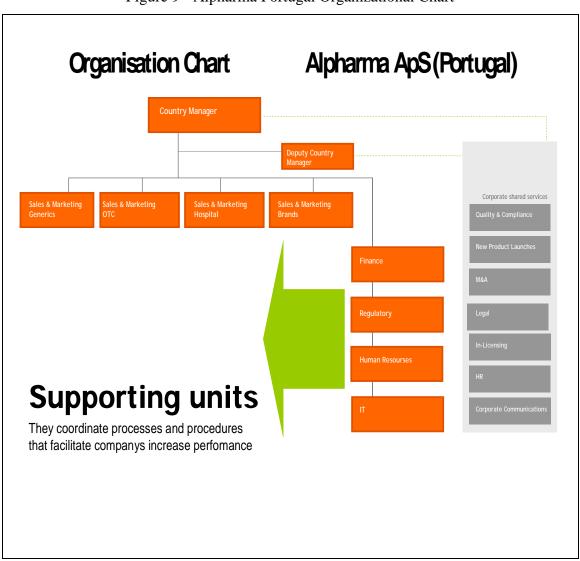


Figure 9 - Alpharma Portugal Organizational Chart

Source: Alpharma 2001 Management Report.

By 2005, Alpharma was marketing 37 generic products in a variety of therapeutic areas, which currently represents about 75% of its total income of EUR 19 million. The organizational structure remains the same, but the number of employees has grown to 89, with the Marketing and Sales department naturally maintaining its relative weight in the company. In the 2005 management report, the management of Alpharma Portugal reiterated its intention to stay at the forefront of marketing "Accessible Medications", by inviting its suppliers, employees and other sales partners to join them in strengthening this mission and, above all, in defending, brooking no compromise, the quality of the company's products and services in order to contribute to improving the population's quality of life.

### 4.2 The Balanced Scorecard in a Pharmaceutical Company

After a short general presentation of the company in question, the following part of this chapter will describe the empirical findings of this work. I will begin by a short introduction on the international context of the BSC within the Alpharma Group, after which the implementation, usage and abandon of the BSC in the Portuguese subsidiary, is presented and discussed.

# 4.2.1 The International Context

As I learned in the interviews with the managers of the Portuguese subsidiary and by studying company internal documents, the roots of the BSC introduction at Alpharma, in the United States, go back to the beginning of 1997. Back then, the pressure to deliver a good return to shareholders had increased, and the company thus monitored its EBIT<sup>1</sup> development on a long-term basis. The company had encountered a situation where it needed to produce and to measure an ever-higher yield for its shareholders - a demand

<sup>1</sup> EBIT – Earnings before interest and taxes.

that had appeared recently with the growing popularity of the shareholder value concept in the 1990s, and also boosted by the increase company's debt. Knowing that the company could not satisfy this demand with the tools it already employed, corporate top management assumed that these demands could be meet if an appropriate tool was available.

As the Portuguese Country manager recalled, back in 1997, a performance gap of the company in the United States became visible and top management decided translate corporate strategy into manageable objectives and that would simultaneously introduce EBIT and thereby shareholder-value-oriented thinking and management into the company. Against this background, the search for an appropriate tool of performance measurement tool began. An important actor in the search process was the company's Chief Executive Officer, which had an extensive network of contacts with external consulting firms. With recourse to this external knowledge, benchmarking processes and theoretical investigations, the company discussed the Economic Value Added (EVA®) concept as a potentially helpful system and gradually moved to the BSC as a tool of interest. The BSC was identified as the tool that best served the needs of the company. Apart from its function as a strategy translator, it was appreciated for its simplicity and conciseness. Also, the ability to use non-financial indicators in addition to the financial ones was of key importance.

In 1997, at the time when the search process for a suitable tool started, Kaplan and Norton's book on the BSC (Kaplan and Norton, 1996) as well as the first case studies and reflections on the new tool were published in international journals. Such recipes serve as a synonym for organizational ideas such as the BSC - thus, given that the tool had already then reached a certain degree of media attention and popularity, and that it was celebrated as an innovative and progressive tool propagated by consulting companies, it would probably be naive to claim that the decision to implement BSC company-wide was based on rational aspects only. Finally, since the company had a history of producing innovative products and continuously sought to perpetuate the image of a progressive company management's decision to employ the BSC for legitimizing and signaling

purposes was also very likely. Having closed the search process, top management decided to implement the BSC company-wide. A project team was formed, consisting of four people of the company's Internal Control department. At the beginning, the team's task was first to do some investigations in the BSC method itself and to determine which external consulting company could best support the scorecard method introduction. Some time after the Internal Control department wrote a handbook about the Business Driver Scorecard concept. This handbook was distributed company-wide at the end of June 1998, serving as the official internal guide in matters involving the scorecard.

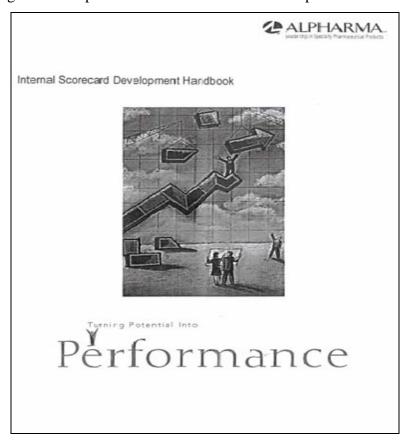


Figure 10 - Alpharma Internal Scorecard Development Handbook

When the BSC concept was first introduced, the adoption of the concept in each country where the company had an existing business was not mandatory. Countries were encouraged to develop a scorecard, but the use of the concept was not binding until January 2001 when, for the first time, scorecard reporting was officially required in the strategic planning process. Similar to the introduction of the concept itself, no rules were

made which networks should be mobilized to develop the scorecards. Each country was free to decide whether they wanted to design a scorecard on their own, whether they wished to ally with external consultants or how else to proceed. Some of the subsidiaries developed the tool without help from the outside and some decided to associate with one of the recommended external consulting team for assistance in the design and implementation of the BSC.

This initial non-binding policy in the BSC introduction had, naturally, reflections in the different levels of scorecard implementations thru out the different countries. The first BSC efforts began already in 1998, in the subsidiaries of the Unites States, and the last scorecard project was initiated in January 2001. These differences can partly be attributed to dissimilarities in terms financial and human resources availability in each country. On top of theses variances in the introduction start points, it looks like no common development and implementation process across the business divisions occurred.

Despite the existence and availability of the official internal scorecard development handbook almost subsidiary followed its own approach, often a modified version of the one suggested by the top management of the company. However, in contrast to the variance in BSC introduction, the problems faced during the development and introduction process seem to have been similar across all countries - obstacles identified most frequently were problems of acceptance and communication, definition of appropriate scorecard measures and their measurement in practice, as well as difficulties related to the information Technology (IT) processing of the BSC data (Lyons and Gumbus, 2004).

As an effort to disseminate the awareness to the BSC company-wide, but out side the formal procedures, top management of the company decided to begin the publication of small but of regular articles on the BSC in the internal monthly magazine (see Figure 11). This initiative helped in the non-formal company-wide diffusion of the BSC, long before it would become a mandatory tool.

Figure 11 - Balanced Scorecard in Internal Journal

# IPD Terms and eople

The New IPD terms being integrated and what they mean to us and for us - and a portrait of Kjersti Johanne Steinskog

The New IPD terms being integrated and what they mean to us and for us

 and a portrait of Kjersti Johanne Steinskog One of the Hello IPD! team (Tone in Norway) talked to Kjersti recently about her involvement with IPD and tells us ...

I actually spoke to her on the phone before her role in the IPMT had been communicated to us. A very pleasant, down-to-earth and



genuinely curious woman called me to ask something, and we immediately went into a long chat. After a while I couldn't help but ask: "Are you new here in IPD?" Indeed she is new to us, Kjersti

Steinskog, member of IPMT since late summer this year. With a 6-8 months' "Management for Hire"-contract, her formal title in IPD is Vice President Organisational Development and her office is at Skøyen in Oslo. With Kjersti in the team, even more focus is placed on the value of the Human Resources in IPD. We talked about Human Capital - a definition with increasing popularity meaning you, me and all IPD colleagues and our value as workers and ntributors to the IPD results. Kjersti's main ocus areas will be to define IPD strategic competencies, management development, IPD culture, ISC, also to define the role of Human Resources, all of which links up to IPD's main goals, today and in the future.

A few words about Kjersti: 45 years old, married with two children and she is something so rare as a fourth generation "Oslo-girl". Her educational background is long and impressive with the main focus on psychology, including studies at the Tavistock Institute in London. People and organisational issues have been the main features in Kjersti's career, ranging from a "closed ward" for youth at a psychiatric clinic to Personnel Director and Organisation Director in some of the Top 10 Norwegian companies.

You can sense when you talk to Kjersti that she is genuinely interested in people. More than once during our interview I realised that Kjersti had turned the situation around and was making me talk about myself instead of

her telling her "life story" to me. So - sorry about that! but Hello IPD! will not publish any inside stories about Kiersti's private life - the one hour we had went much too quickly! Our IPD Vision states that we want to be one of the main players in the European generic market. To achieve that, all of us will have to contribute by doing our utmost, using our personal resources, skills and competencies. Surely we are each aware of our own competencies and skills - but is IPD aware of them? And what strategic competencies are needed within IPD in order to reach our common goals? Do we have one or several common goals? And are we all aware of them and pulling in the same direction to achieve the goals? All these and many more "scenarios" are on Kjersti's desk and recently the first workshop was held in a major project: IPD Integrated Supply Chain. (ISC) The total ISC work will consist of three sub projects

- Integrated Supply Chain Strategy



- IT systems
- E-commerce and Internet

By gathering the forces and implementing an end-to-end thinking we will focus on the customers from start to finish, from raw material to finished goods. The supply chain is affected by the rapid changes in technology and also the Internet influences by means of removal of organisational borders. The consequence of a global organisation is a very long and complex supply chain and the ISC project will focus on how to manage this chain effectively. For example, what kind of management will be the best and how will a common focus and integration be achieved. The main aim is to get all parts of the chain to play in the same team aiming at one common goal. The end-to-end perspective of the ISC is described in a model pictured here on this page. And we will come back with a more thorough article about the

development of the Integrated Supply Chain project in our next issue of Hello IPD!

Another new IPD term is being introduced these days:

#### Balanced Scorecard (BSC)

We can almost hear the sighs coming in from our colleagues: "Oh no — we another new management "thing" ... we have CIDs and RACIs and KPIs and now BSC — what is the purpose of all this?"

The Balanced Scorecard, which will be implemented gradually, is - when fully developed - a strategic management system to help link today's actions with tomorrow's goals. The BSC process will ensure that everybody understands the overall strategies and goals our



Phizz-Rx BSC model

company has defined. It will integrate the strategies with the budgeting process, aligning individual and unit goals with the strategy. Basically this means how shall/can you do your daily work in order to contribute to the strategy fulfilment. Finally the process will have a system for testing, problem solving and measuring. In graphic terms it will look like this:

#### The BSC has four objectives:

Financial objective: Goal — what we are aiming for (ex revenue growth)

Customer/Market objectives: Defined Key drivers in/to the market Internal objectives: What to do internally in order to get to the Key drivers Know-how/culture objectives: Necessary know-ledge/competencies defined as important

The team balanced scorecards will be linked to KPIs, as it is an already implemented measuring system in IPD.

And — Hello IPD! will follow the process closely so stay tuned for more reports on the development of the BSC in coming issues!

FT

International Pharmaceuticals Division

Source: Hello IPD, December 1998 – Alpharma internal magazine.

### 4.2.2 The Design of the Balanced Scorecard

The subsidiary of Alpharma in Portugal was one of the first, within the companies group, to implement the BSC. To do so, the management team in Portugal, composed by the Country manager, finance and marketing managers, had the cooperation of one of the recommended external consultant companies – Phizz Rx.

The development process in Portugal, as recommended by the internal scorecard development handbook, consisted basically of three steps. First, country strategy was discussed – this strategic discussion was then extended to an exchange of thoughts about an appropriate vision and value proposition of international top management. This initial discussion, occurred in September 1999, produced a draft document that would become the basis of the BSC implementation in Portugal. Considering the value of such document to this empirical work and its importance to the understanding of the strategy definition process in the Portuguese context, I decided to include the full document in the appendix of this dissertation (see appendix 3). The second step included the training of local stuff. The necessary pre-knowledge on the BSC was given by having employees occasionally attended internal presentations by the companies's BSC expert. Such presentations typically included a BSC implementation case, for example, in one of the company's production plants. The third and final step in the BSC development process was again a workshop, which dealt with the discussion of a linkage model (cause-and-effect chain) for the critical few objectives and the determination of appropriate key performance indicators and targets. It was in this final step that, according to the Country manager, "a unique challenge was assumed by the local top management". At the end of 1999, it had became quite clear that new opportunities in the Portuguese pharmaceutical market would arise from the introduction of generic products in the market. In order to assume a leading position in this emerging market, Alpharma Portugal began doing its home work by clearly defining and communicating its vision and values. Mailing campaigns to all employees and posting bills in the office walls, transmitted a clear message to everyone to where the future would be – see Figure 12.

The BSC of Alpharma in Portugal, build in accordance with the companies scorecard development handbook in presented in Figure 13. The vision of the company is illustrated in the left of the scorecard: "Accessible Medicine". The scorecard is divided into four perspectives: the financial perspective the market perspective, the internal process perspective, the know-how and culture perspective.

Strategic goals and key task were derived from each perspective. For each strategic goal in Alpharma's scorecard several tasks were determined, being those tasks considered as critical success factors, which were the most critical issues for the organization's competitiveness and therefore aligned with the vision and strategic objectives (Kaplan and Norton, 1996a).

Figure 12 - Mailing sent to Alpharma Portugal Employees



Source: Alpharma's internal mailing, December 1999.

The strategic objectives, together with critical indicators, help the organization in Portugal to deploy the over-all vision down to strategically important measurements (Kaplan and Norton, 1993). Therefore, in order to analyze the BSC of Alpharma in Portugal, one needs to focuses on the achieving its vision.

In the financial perspective the strategy objectives were linked to revenues, costs and gross margins goals. Thru the achievement of theses objective the company would be able to fairly remunerate the involved stakeholders and thus offering to the market "Accessible Medicine".

In the Market perspective, ten strategy objectives were defined: to launch generic products; to increase the participation in the hospital tender business; to manage the transition from existing branded products to generic products; to lobby for default substitution; to focus promotion in doctors for the prescription of generic products; to form and maintain partnerships with pharmacies; to build bridges between doctors and pharmacies for the implementation of generics; to implement an Alpharma brand; to assure product quality; and to produce and market a wide range of generic products. The strategic objectives the market perspective aim to an implementation of the concept of the generic product in the Portuguese pharmaceutical market – being generic products, by definition, considered as "Accessible Medicine".

For the internal perspective, eleven strategy objectives were set: to identify target and lobby partners; to target doctors prescription; to leverage local knowledge in the generics market; to operate as a distributor for other international generics companies; to enable fast regulatory approval processes; to in-source services from with the Alpharma international structure; to position the company within the Portuguese generic market; to create an internal task force to support the hospital business; to assure a better sales force territorial management; to create and update a product wish list; and to search for local acquisition opportunities. The internal perspective, with its strategy objectives, aims to deploy a lean and flexible organization into the Portuguese market, able to offer its

customers, patients and partners products and services compatible with "Accessible Medicine".

In the know-how and culture perspective the strategy objectives were related to the development of commercial skills, to the integration of the Alpharma skills, to the increase of generics mindset, to the improvement of IT skills, to the improvement of product sourcing skills and to the establishment of new brand values within the organization. For the strategy objectives of the know-how and culture perspective, the goal was to enhance internally the mind set on the "Accessible Medicine" concept.

For all the strategic objectives, Alpharma Portugal defined 21 key measurements, align with the critical success factors in order to indicate how the company was standing in respect to the overall vision (Kaplan and Norton, 1992). All goals were presented in percentage points, in order to measure the goal achievement from the previous quarter of the year. The measurements and goals in the scorecard were also documented in a measurement document, which includes all performance measurements reported for year 2000. Once more, considering the value of such document to this empirical work and its importance to the understanding of BSC at Alpharma, I decided to include the full document the appendix of this dissertation (see appendix 4).

In my interviews I was able to conclude that all employees recognized the company's BSC, as presented in Figure 13., and mainly, all of them were able to recognize the vision illustrated in that same figure. The interviews with the employees allowed me to validate that the company's vision represented, in fact, the embedded values that the employees associated to the company. According to the marketing manager of the company, the concept of "Accessible Medicine" brought together many different values assumed cherished by each department. Using he's own words "it was good to work in a growing organization with a continuously improvement our skills, as stated in the vision".

One of the first handicaps I've encountered in the design of the BSC in Alpharma Portugal, relates to strategy maps. According to Kaplan and Norton (2004) strategy maps

should be used to describe the process for transforming intangible assets into tangible customer and financial outcomes. Strategic outcome measures must be identified in the customer and financial perspective. The authors identify the intangible measures in the other perspectives as performance drivers. As I concluded in my interviews, Alpharma Portugal did not used a strategy map to present its scorecard, which made it hard for people that had not been involved in building the BSC to understand the strategies and their inherent logic (Olve *et al.*, 2004). There was then a risk of people in each department to choose to report measures that are not strategically aligned with the company strategic decisions.

Figure 13 - Alpharma Portugal 2000 BSC

<b>₹</b> ALPHARMA					
BALANCED SCORECARD 2000					
Vision	Perspectives	Strategic Objectives			
	Financial	Revenues Costs Gross Margin			
Through great people, superior processes and innovative solutions, we will be a leading company in making accessible medicine.		Launch generic products Increase the participation in the hospital tender business Manage the transition from existing branded products to generic products Lobby for default substitution Focus promotion in Doctors for the prescription of generic products Form and maintain partnerships with pharmacies Build bridges between Doctors and pharmacies for the implementation of generics Implement an Alpharma brand Assure product quality Produce and market a wide range of generic products			
	Internal Processes	Identify target and lobby partners Target Doctors prescription Leverage local knowledge in the generics market Operate as a distributor for other international generics companies Enable fast regulatory approval processes In-source services from with the Alpharma international structure Position the company within the Portuguese generic market Create an internal task force to support the hospital business Assure a better sales force territorial management Create and update a product wish list Search for local acquisition opportunities			
	Know-how and Culture	Development of commercial skills Integration of the Alpharma skills Increase of generics mindset Improvement of IT skills Improvement of product sourcing skills Establishment of new brand values within the organization			

Source: Alpharma Finance Department.

Another critical remark, although with out any impact in the practical aspect of the design (and/or implementation) of the BSC relates to some terminology errors I've found in the official documents. For example, in the official design document if the BSC (attached to this dissertation) the BSC, is referred as "Balance Score Cards". Although with out any significant consequences, this terminology error, that escaped the analysis of both local management and external consultants, can only be explained by the ambition in implementing the BSC in Portugal. Nevertheless a diligent revision of official documents should have been made.

#### 4.2.3 The Implementation of the Balanced Scorecard

According to the information gathered in my interviews, all three member of the Portuguese Alpharma management team, first became acquainted with the BSC concept in June 1998, when the official internal scorecard development handbook was distributed company-wide. They then welcomed the new concept due to its logic and similarity to his way of managing the company. Moreover, the emphasis on both financial and nonfinancial assets made the tool even more attractive since the company had been focusing too much on financial cutbacks during the stringent economic measures in the 1990's (when for the first time in many year, the Portuguese government decided to cut down the price of reimbursed medicines) in order to assure product profitability in the existing products. The Country manager explained that the aspiration to shift focus was one important aspect when agreeing to be one of the first companies within the group to implement the BSC in 1999/2000. In addition to the strengths of the BSC, the Country manager highlighted that the weaknesses of the diffuse performance measurement system spread thru out the company, enabled him to accept and embrace the BSC implementation in Portugal. As former Sales & marketing manager, he claims that the traditional measurement systems were very resource demanding to use and required expert skills. Complementing this thoughts, I was registered the statements form the external consultants, at Phizz Rx, mentioning that since the beginning the BSC won a greater acceptance in the departments on the company than the traditional financial measurement systems, like EBIT and ROCE<sup>1</sup>.

The common understanding, at the beginning of the implementation process, was that the BSC was more applicable to the company's activity and more easy to use. As I concluded in my interviews, every single manager of the company believed that they would better control their own activities by setting their own goals and measurements. The consultants from Phizz Rx, along with the local management team started designing a scorecard for Alpharma Portugal, in late 1999, as described previously. The design of the scorecard provided a clarification of the company's vision. The management group decided upon a common vision for the company and thereafter each department annual report was used as a basis for designing perspectives and strategic objectives. The departments could then focus on measurements, goals and action plans instead of putting effort into strategic.

Figure 14 - Internal memorandum, dated from December 20<sup>th</sup>, 1999

<b>2</b> ALPHARMA	International Pharmaceuticals Divisio
Initiatives Prioritization in the BSC implementation.	
Support any future business	<ul> <li>Initiatives that support any future business should be a high priority because they will always be relevant no matter how the business develops</li> </ul>
Support both Active and Default	<ul> <li>Initiatives that support both generics scenarios have a higher priority than those that support just one scenario</li> </ul>
Time to implement	<ul> <li>Initiatives which take a long time to implement need to be started earlier</li> </ul>
Time precedent	<ul> <li>Some initiatives must be complete before others can start. The initiative's priority will depend on its dependent initiatives</li> </ul>
Amount of investment	<ul> <li>Cost may be used as final filter to check that there are not high investment requirements in one period and none in another. Cost should not form the main basis for prioritisation</li> </ul>

Source: Alpharma internal communications database, dated from December 20<sup>th</sup>, 1999.

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<sup>&</sup>lt;sup>1</sup> ROCE - Return on Capital Employed.

After a BSC had been designed and formally approved by local management, in December 1999, the responsible for each department in the company were requested to present his budget for the next (and following year) in accordance to the BSC design. Due to the lack of resources, in the first year of the implementation, each department was free to deploy the scorecards throughout its organization. Thus, there were no directives concerning what level the scorecard should be taken down to.

The Country manager, against the advise from Phizz Rx consultants, allowed the managers from each departments to have their own choice of deploying the scorecard model. However he required that the scorecard should be used as a budget and reporting model at the department level and that performance measurement, for the year 2000, should align with the BSC design. A prioritization of task was therefore suggested by the Country manager, in an internal memorandum, dated from December 20<sup>th</sup>, 1999 (see Figure 14).

Although there are no requirements on the degree of deployment, what happened was that each manager of the company decided, with additional efforts, in late 1999, to taking the scorecard down to the unit level allowing each department to gradually getting used to the concept and becoming aware of its benefits.

In my interviews I've discovered that, differently from the management team, some employees received the news on the BSC implementation with great skepticism, partly due to its terminology. Terms like "vision" and "customer" were somehow difficult to use in a established pharmaceutical company – the terms 'results' and 'patient' were more usable. Naturally that the difficulties in getting started with BSC depends on peoples focus on their own interests. According to the Country manager, single individual that do not want to be forced in a certain direction, characterize the small lobbies that are build within the pharmaceutical companies. He stated that the sales representatives, visiting doctors seem to have more difficulties in being involved in this project and make the

expected changes. The fact that official document, related to the design and implementation of the BSC were translated into the Portuguese language also didn't help. All the non manager employees that were interviewed expressed that at first they thought the new concept was not easy to understand. Two interviewees expressed that the vocabulary and concept took a lot of effort to sort out ("When we filled out our annual reports we had to reflect on what a process is and what is meant by customer and what is an employee. We had to think about the meaning of the concepts and what they meant to us." sales representative). One employee thought the new design was hard to relate to and adapt to, mainly on what the linkedge was concern ("At first I thought it was a mess. I thought it was difficult to understand what it meant. Therefore it took some time to get a grip on it, but when we all had to used it a few times it became natural." logistic manager) – see figure 15.

Three employees that were interviewed also expressed that the initial information from the management was poor and only in the English language, which caused a barrier in terms of communication. The accounting assistant thought that it was mainly one-way communication, which did not create any deeper understanding to the company or its employees. He felt that the manager from he's department talked about the concept too often without explaining its implications. Another employee, a senior sales representative, thought that the lack of a clear training and explanation of the purpose of the new model led to frustration when filling in the BSC form, where he that to daily report his activities mapped against its respective objectives ("Sometimes it has been so much that I have felt 'No, not that again', but it has been good. Now I feel I can manage some of it. It was quite trying for a while." senior sales representative).

One important factor that influences the effectiveness of change initiatives is the recognition of a need for. If people in the organization experience a tension to change, the change initiative is more likely to be successful than if people experience the current situation as satisfactory. In this work, as mentioned before, I've found a company using the traditional financial measurement systems, considered to be very resourceful demanding, in terms of required expert skills. Thus, there was, in fact, a need for change

concerning the performance measurement system, which may have enabled the acceptance of the BSC at the company.

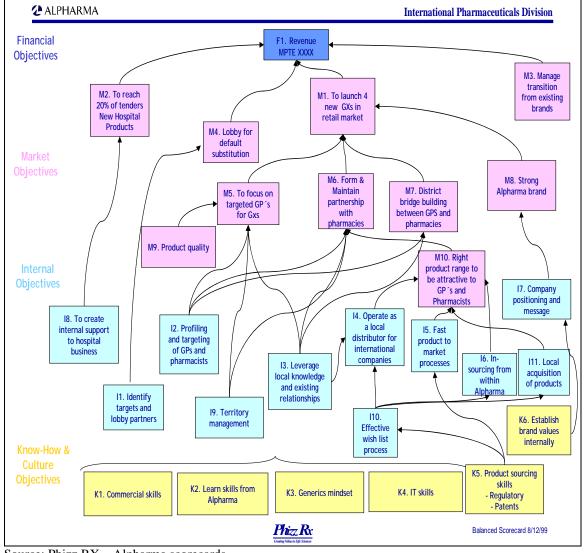


Figure 15 - Alpharma Portugal BSC linkage Model

Source: Phizz RX – Alpharma scorecards.

Another important aspect in change initiatives is to let the people in the organizations adapt to the changes and feel that the changes contribute to their situation in order to make changes effective (Beer and Eisenstat, 2000). At Alpharma Portugal, the Country manager had an open and flexible attitude towards departments abilities to adapt to the usage of the BSC, the timing of the implementations and usage was of key importance.

Although Alpharma Portugal seems to have created conditions for an effective implementation of the BSC through an open attitude, recommendations, adaptation of terminology and time allocation, one may reflect upon the consequence of some "rush" in its introduction. As mentioned the previous chapter, Kaplan and Norton (1996b) suggests that it takes about 25-26 months for a company to make the BSC a routine part of the management process. However, the time schedule depends very much on the organization's background, history and current situation.

The need of changing the company strategy, in order assume a leading position in the Portuguese generic market, boosted the implementation and usage of the BSC, with all it's inherent frailty. When choosing to design and implement a BSC in a period of 7 to 8 months, as Alpharma Portugal did, ones risks to have poor diffusion of the tool throughout the organization, deficiencies in communicating objectives (including terminology error, as mentioned before) and resistance to change.

#### 4.2.4 The Usage of the Balanced Scorecard

By 2001, BSC had become a natural instrument in management and not only a new way of organizing managerial work at Alpharma Portugal. As stated by the Country manager, in Portugal the BSC contributed to documenting managerial work in a structured way, which lead to orderliness in the management ("I think the structure is similar to how most managers think in their managerial work. I mean... the wheel has not been reinvented. For some managers it is as if the wheel has been invented but I don't think so. It is well-structured and accessible." Country manager).

As the company's financial controller referred in one of the interviews, the BSC was both used as an instrument in following up the departments' results as well as in the strategic planning process: ("So, it's like a follow up instrument, but also a platform for discussing strategies." financial controller). Other managers of the company, such as the regulatory manager, referred the BSC as a dynamic tool, which develops from a way of describing how to follow up and how to plan the activities within the departments. She believed that it takes time to develop the scorecard to become a way of controlling the activities at the

department level ("When you start with the BSC it becomes more like a description of the activities. But if you continuously work with it and become familiar with following up goals, measures and action plan every four months, it becomes more and more a controlling factor. Because the focus is then shifted to planning and follow-up from just watching and seeing what happens. It will take time before all the departments work this way." regulatory manager).

But not only manager of the company share this opinion on the BSC. All the non manager employees interviewed express that they viewed the BSC as a tool that management of the company could draw benefits from in their strategic work. The interviews show that the commitment to the BSC did not varied much between departments. Almost every employee from sales department seemed more involved in the work and familiar with the concept. Whereas employees from the regulatory department were well used to the concept and committed to the work.

The transfer of the BSC information into a Lotus Notes database, in yearly 2001, made this tools accessible (in different levels of authorization) to each and every employee in the company. With this IT development it was possible to access on-line information of the Portuguese BSC. This was important not only for the Portuguese employees of Alpharma, that with a "click" could access the information on their KPI's and report their achievements, but also of particular interest to the top management in the Unites States, that could regularly monitor the measure the performance of each subsidiary around the world. When the usage of the BSC became a routine in the daily activities, almost every interviewed employee of the company view the BSC as a directive from the management to receive information about the unit's annual activities and to measure their on individuals KPI's.

After 2001, with the new IT tool, all departments were obliged to report their results do the local management every quarter and in time for the annual balance sheet review. The measurements in the BSC were then updated for the current period in the Lotus Notes database. Although the departments had some knowledge of the expected reporting

procedures, in that first year most departments did not report their measurements in time, which leaded to the management need to remind manager to fill in their BSC. At the same time as the annual reporting of results from the previous year, every department put together their BSC for the following year. The departments then define their objectives, measures and action plans. According to the Country manager, the BSC was a dynamic tool, which should continuously be changed and adapted to the organization's conditions. Therefore, the scorecard needed to be reviewed and changed gradually ("The idea is that you should think of and reflect on [the BSC] and I don't believe it should be static. Thus I think it should change and develop as new things arise, otherwise it wouldn't be a BSC." Country manager).

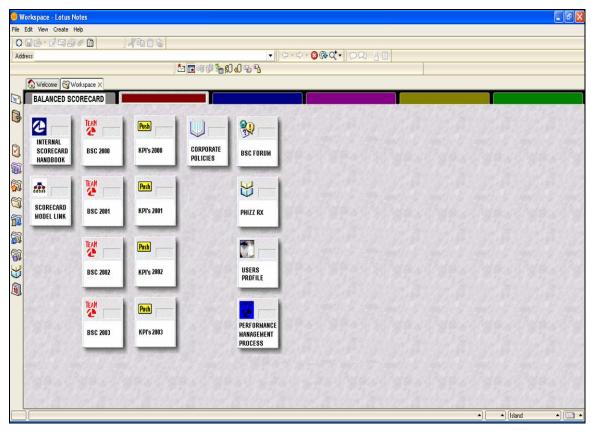


Figure 16 - Alpharma Balanced Scorecard Lotus Notes Database

Source: Alpharma Lotus Database.

However, some managers expressed that a continuous adaptation of goals, measures and action plans lead to frustration since the employees feel that they never become good

enough as the goals continuously change. Thus the employees might lose their commitment to using the tool. In order to make people review their scorecards on a more continuous basis, since June 2001, all the departments had one hour per week during department meetings to spend on upgrading their scorecards. However, the interviews with the employees proved that this time was seldom used for that purpose. One of the departments used the action plans in the BSC during department meetings as a basis for reviewing the actions taken during the week. While the action plan was followed up every week, the measures were mainly reviewed once a year. Another department sometimes used their scorecard at departments meetings to check what actions they have planned to take during the year. However, using the scorecard during the meetings was not standard procedure.

Many of the employees that were interviewed also claimed that the scorecard contributed to an increased understanding of the work in the department. The scorecard was regarded as a tool, not only for management, but also for the employees to understand how they work and how they should plan their work during the year. Four of these employees clearly stated that the scorecard provided employees with a comprehensive overview of the work, allowing the prioritizing of the activities since one could see the balance between the initiatives and thus recognize if there was a need for more effort in some direction. Some employees also point out that the department scorecard may have functioned as a basis for discussions with colleagues within the department. And most importantly almost every employees reveled that BSC was perceived rather as a way of thinking in the day-to-day work than a paper including different elements. Although the employees do not explicitly work with the scorecard in their day-to-day work, there are similarities in thinking in both the day-today work and the annual planning in the scorecard, as mentioned to me by a Sales Representative ("I think people reflect on it in their daily work, but don't call it a scorecard. During my daily activities I think of the goal with a certain activity and how we should achieve it." sales representative). In addition, the scorecard was viewed as part of the day-to-day work as the scorecard represents the daily activities through the measurements.

My findings show that, in 2001 and 2002, the BSC was well diffused and disseminated thru out the Alpharma Portugal organization. It was used for reporting results up-wards in the organization to the management of the department and in planning the annual activities. The BSC was also used as a basis for discussions within the departments. The contributions from the application of the BSC at the departments of the company was experienced as increased orderliness and understanding of the work at the department. According to Kaplan and Norton (1996) the benefits from the BSC are first and foremost referred to as effectiveness in managerial work. For instance, the BSC helps management to clarify and gain consensus about strategy, communicate strategy, and obtain feedback to learn about and improve strategy. In the case of Alpharma Portugal, improvements in the company vision ("Accessible Medicine") was one of the main purposes for the introduction of the BSC. However, the departments also seem to benefit from using the BSC although the BSC was expected to mostly improve managerial work in the management team.

One may also reflect on barriers to the use of the BSC at the department level. My findings indicate that the BSC has received less attention at sales department and marketing unit than in other administrative departments, such as regulatory or finance. This might have been linked on differences in work design and unit size, although I have no evidence to this conclusion.

#### 4.2.5 The Abandon of the Balanced Scorecard

In 2002, after the Enron, WorldCom and Arthur Andersen events in the United Satets, like all listed companies, Alpharma was compelled to adopt into its internal controller policies the Sarbanes-Oxley legislation. This imposition, extensive to all Alpharma subsidiaries around the world (that included a full and detailed description of all company activities and processes) absorbed most of the financial and human resources allocated to the usage and keeping of the BSC, which by 2003, and in line with top management instruction, began to be of optional application, rather than mandatory, as before. These

activities would serve later on to determine implementation of the necessary internal control measures, required by the legislation and by the audit company to issue a clean review of the Alpharma consolidated financial statements, published in the United States (Keller, 2007). This clean review was mandatory if the company hoped to continue on being listed in the United Stated stock market exchange, without any penalties. As quote by the Country manager: "we had to respect this, or else we would be out of business".

In Alpharma Portugal, like in many other small countries, the business activities were profoundly affected by the Sarbanes-Oxley wave, in 2003. The implementation of Sarbanes-Oxley meant that every single activity of company would have to be described and documented. I've attached in the appendix of this dissertation one (among many others) of such processes description, in order to scientifically illustrate into what endless task the small Alpharma Portugal organization had fallen (see appendix 5).

As I concluded from my interviews, time was a central factor in the involvement and participation in the BSC. All employees that were interviewed express that they do not have enough time to get involved in the scorecard as much as they would want. However, although management had allocated one hour per week to work with the BSC, this time is seldom used for that purpose. The motivation to work with the BSC, after 2003, seemed to be unclear among employees.

Employees had to prioritize the day-to-day activities or the Sarbanes-Oxley tasks. This low motivation indicates that employees did not have enough incentives to use the BSC. This have leaded to a decrease in the organization's willingness to change, which would affect BSC use in the long run and also other concepts that may have bee implemented with it. With the addition of these new set of tasks raising from the Sarbanes-Oxley application, the Country manager in Portugal, prioritizing resources, announced the suspension of the usage of the BSC in the summer of 2003. Although the Lotus Notes database was looked for new inputs (it remained open for consulting) the suspension was never an official abandon, in part because the Country manager of Alpharma Portugal, always hoped to re-implement the BSC after the Sarbanes-Oxley wave.

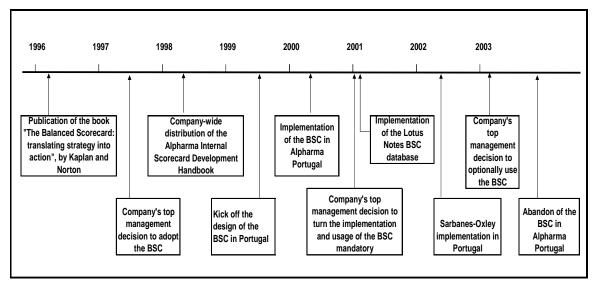


Figure 17 - Diffusion of the BSC in Alpharma Portugal

Contrary to other countries, where the usage of the BSC was suspended and later reimplemented with a new strength and vitality, after 2003 the BSC was never again used in Alpharma Portugal.

#### **CHAPTER 5**

#### **Conclusions**

In this chapter, I will try to answer my research question and discuss issues related to it. I will further elucidate other aspects that can be derived from my analysis and that I believe to be important, mentioning the contribution and limitation of this work.

#### **5.1 Summary of Findings**

The purpose of this dissertation is to increase the understanding of the use of a BSC in a subsidiary of an international pharmaceutical company in Portugal. Findings from the case study show that the BSC in the company studied was used primarily in strategy, planning, reporting and follow-up activities. In addition, the BSC was used in discussions between employees, to disseminate information throughout and outside different department in the company, thus creating an orderliness and understanding of the annual activities and developmental activities. Comparing the use of the BSC with the purposes of its introduction in the company indicates that the BSC was used to fulfill its original purposes, thus laying part of the answer to my initial research question. The findings indicate that the BSC was used as a strategic management system that aimed to increase company management control - the BSC was also used as an information system from which managers receive measurable information about the operational activities that provide the basis for follow-up, planning and developmental activities.

The use of the BSC at Alpharma in Portugal was thus a dynamic process that involved all employee participation and adaptations to existing measurement systems, as well as discussions between people to create a common framework for interpreting measures and goals in the BSC. My findings show that the studied company had potential for developing the BSC to become a full integrated strategic management system in the future.

The abandon of the BSC followed by the introduction of an internal control tool, such as Sarbanes-Oxley, revels the importance of the correct allocation of resources to the

maintenance of the usage of the BSC, after is implementation. The lack of resources and the arrival of an endless and time consuming task led to the abandon of the BSC.

#### 5.2 Contributions of this Study

The major contribution of this study lies in the description of the BSC in its practical context. We still have limited knowledge on how the relatively new BSC works in practice; especially in a pharmaceutical company environment and in large-sized multinational companies as studied here. Because of the dominance of normative BSC studies in contemporary literature, managers might benefit from this empirically grounded studies that not only highlight the positive aspects of the BSC but also the shortcomings or critical areas. Accordingly, from a managerial perspective, the actual problems experienced when implementing and using the tool might be perceived as the most valuable information of this study. Similarly, the specific organizational factors that were identified as influential for the evolution process might help managers to avoid mistakes when implementing and maintaining the BSC.

#### 5.3 Limitations and Suggestions for Further Research

This study, propose and conducted by a "non-researcher", such as I, suffer of some limitations. Apart from 3 specific limitations, to be exposed later in this chapter, there is a significant limitation to this dissertation as an whole – by the time this study was realized the target company, Alpharma Portugal, had cease to exist. In a worldwide merge with another pharmaceutical company, the activity, people, processes and values of Alpharma were integrated in a different cultural and business environment. Thus, this study performed in a retrospective perspective, might have been influenced by the absorption of the new company values, influencing peoples retrospective views over past events.

The first specific limitation relates to the research process described in Chapter 3. In order to give the reader additional foundations to evaluate the results from this

dissertation I would like to point out some critical aspects identified during the research process. As mentioned this study aimed to investigate the implementation of the BSC through a retrospective analysis of peoples' stories of the implementation, complemented by all the other documental evidence. During the interviews people were asked to remember their first contact with the BSC, which had occurred 7 to 8 year ago. There is always a problem in conducting retrospective analysis since people tend to reconstruct their memories in order to make them logical or suitable for themselves or to the researcher. This leads to an implicit risk that valuable information from the interviewee never reaches the investigator or that the researcher never receives the information of how events actually happened.

Using a tape recorder during the interviews may also be identified as an obstacle in the research. In order to make the interviewee comfortable with the situation, I presented the purpose of the project and asked if the interviewee had any questions before I introduced the tape recorder. Thereafter, I asked if the interviewee agreed to me using a tape recorder during the interview. In only 40% of the cases the usage of tape recorder was agreed to. Although there is a risk that the use of the tape recorder has made people withhold valuable information during the interviews I experienced that people were open with their perceptions and thoughts.

The reduction of the data in coding and analysis always leads to a loss of information. Even printing the taped interview and rewriting with the help of notes taken during the interview afterwards involves a loss of information. However, one could not neglect the fact that summarizing the interviews may have been a hindrance in the analysis of the information. During the analysis of the interviews no qualitative data program was used. Another critical aspect in the research is the fact that the findings from the interviews have been translated into English. This means that statements from the interviews presented in the work can be interpreted in a different way than if the statements were presented in interviewee's own language, Portuguese. Therefore, the reader should keep in mind that the findings are presented in a language different from the native language of the interviewees' when evaluating the results.

The second specific limitation of this work relates to constrains on writing a MsC dissertation. Due to these constrains related to time and rules I was not able to fully

explore the aspect of the abandon of the BSC in Alpharma Portugal. This issue alone, by definition, might be the subject for another dissertation.

Finally the third specific limitation refers to access information provided by the consultant company Phizz Rx. My access to this company that played and key role in the design and application of the BSC in Alpharma Portugal, was very limited. I was only able talk over the phone with one of the consultants, one single time and for a few minutes. The impossibility in accessing this information is a big limitation to this study.

In order minimize such limitations and to improve to the scope of this study, I generate new questions that may provide a foundation for future research. I do not proposed any internal priority of the following suggestions since it largely depend on the researcher's background and personal interest. However, after conducted this case study I am especially interested in studying how the BSC, and maybe other management concepts, evolve over time and how researchers, society and practitioners influence and form these concepts. In addition, it may be interesting to further investigate the effects of using the BSC. This study focuses on peoples' interpretations of the benefits of the BSC. In order to complement this picture it may be interesting to investigate the relation between the economic development and/or customer satisfaction and the implementation of the BSC. Two other aspects that this study suggests as interesting topics for future research on the BSC are the organizational learning aspect of the BSC and, connected to that, its function as a strategic management tool. As indicated in the initial BSC description in Chapter 2, Kaplan and Norton claim that organizational learning processes occurs when using the tool. The BSC is supposed to enable single and double-loop learning, whereby the latter is supposed to lead to changes in strategy. Although this dissertation already concluded in the effectiveness of changes in strategy, indications for double-loop learning were not assessed.

From a researcher's perspective, the usefulness of a BSC for learning processes would distinguish it from other contemporary management accounting tools. Therefore, future studies should investigate whether the BSC could really be useful in organizational learning processes and if so, of what kind these could be.

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<b>APPENDIX 1 - Authorization to Conduct the Stu</b>	dy at Alpharma
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## DECLARAÇÃO

A empresa Alpharma ApS, com sede na Rua Virgilio Correia, 11-A – 1600-219 LISBOA, autoriza Rui Manuel Goncalves Janota a aceder aos seus registos tendo em vista a elaboração da sua tese de mestrado em contabilididade. Todas informações internas da companhia poderão apenas ser divulgada no âmbito deste trabalho.





**APPENDIX 2 - Alpharma Evolution Time Line** 



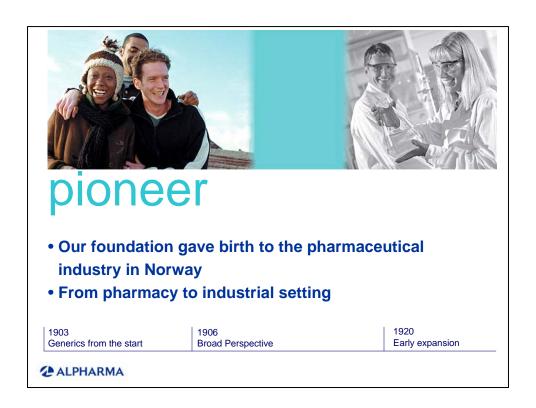
More committed than ever to making medicine accessible

1903-2003

**ALPHARMA** 

Our ambition is to take a leading role in shaping the future of the generic pharmaceutical industry, by breaking down barriers between medicine and people. We make medicine available by providing a complete, flexible and affordable product range, supported by understandable and relevant information and services - benefiting our customers, patients and health professionals, This is our history, and this is our future. In a world where the cost of medicine is rising and many people are deprived of adequate care, we know we have a key role to play - a role which is important for patients, health professionals and society at large.

Since 1903, Alpharma has played an active role in making medicine accessible, as one of the pioneers in the pharmaceutical industry. This presentation gives a quick insight into how hard work, courage and willpower has taken us to where we are today. Our journey has just begun...



Alpharma was founded on an idea that gave birth to the pharmaceutical industry in Norway: Moving the production of pharmaceuticals from the pharmacy to an industrial setting.

#### 1903: Generics from the start

"AS Apothekernes Laboratorium for Specialpræparater (A.L.)" was founded 8 June 1903, in downtown Kristiania (later Oslo) by a group of 4 pharmacists, including Einar A Sissener. The products were based on existing formulas – a true generics company from the start.

#### 1906: Broad perspective

In 1906, our products were brought to Brussels and Paris – to the "International Applied Art & Hygiene" exhibitions. Result: Highest awards, gold medals and grand prix.

#### 1920: Early expansion

More space was required – we bought land and built new production premises and head-office outside the city centre.



Adversity builds character. During difficult times in the thirties and World War II, we faced serious challenges, fought back and won.

### 1930-36: Hard times

An extensive production programme and meagre revenue per product sent our company close to bankruptcy. The Sissener family sent young Wilhelm Sissener – one of the first to hold a proper university degree in Economics in Norway – to investigate the financial status of the company. It was more serious than he expected.

### 1937 - 38: A new beginning

A change committee, headed by W. Sissener, prescribed a harsh, but effective medicine: Re-organisation and re-financing as well as pruning of the product line. W. Sissener was appointed managing director.

### 1938: Patching up the business

Høye Fabrikker and A.L. both applied at the same bank for loans to invest in Band-Aid production machines. The bank brought us together, and we became a 50% shareholder in Norgesplaster – which since has dominated the Band-Aid market in Norway

### 1940 - 45: Survival of the fittest

During World War II, the task was to keep business going. Our company had foreseen problems, and had secured generous supplies to maintain production. The most popular product – for obvious reasons – was Tonipan, a cough mixture containing 15% alcohol.



The war is over, expansion can begin, with a new platform for growth: The decision to become a basic producer of antibiotics.

### 1948: A brave move

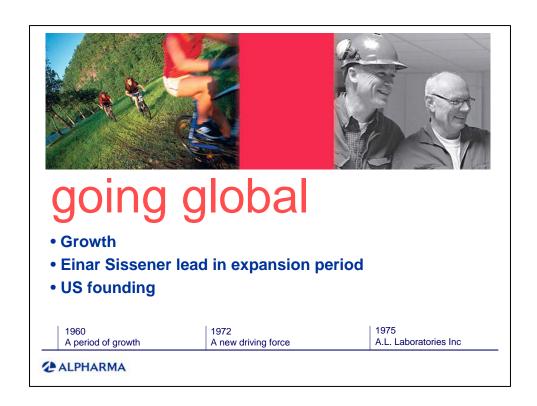
The decision is made to become a producer of antibiotics, with farreaching implications: This technologically sophisticated process demanded high investments. Norway would be too small – antibiotics is a substance for the world market.

### 1952: Fermentation for the future

We bought license for the fermentation technology for penicillin, bacitracin and neomycin through an agreement with the US company Commercial Solvent Corporation.

### 1954: New core products

The production of bacitracin and neomycin commenced – and bacitracin would become a core product for us for many decades.



The foundation of a truly international company was built through the bacitracin business and the founding of the US subsidiary.

### The 1960's: A period of growth

Throughout the 60's, our company gradually grew and expanded its business. In 1969, we became the world's largest bacitracin manufacturer.

### 1972: A new driving force

Einar W. Sissener, who had joined Alpharma in 1960, became the new managing director – and the driving force in the strong expansion period to come. Upon the expiry of patents in 1974, we attempted to introduce bacitracin on the US market, but the substance was denied approval by the FDA. There was another way in: The acquisition of the bacitracin business of the US company SB Penick.

### 1975: A.L Laboratories Inc

The acquisition was followed by the establishment of the subsidiary A.L. Laboratories Inc. Roy Cohen became the first President and CEO, and played an instrumental role in building a very successful business in the US – underlining our position as a truly global company.



Based on a strong platform of products, people and geographic distribution, we continued our steep growth and international expansion.

### 1979-82: Extended capacity

International sales increased by over 40% per year, and production capacity was stretched. A bacitracin production facility was built in Chicago Heights, Illinois.

### 1983: Scandinavian power

In 1981, the Danish company Dumex started production of bacitracin, becoming a severe competitor for us. But soon after, Dumex was put up for sale. A financing solution was found in 1983, and we acquired Dumex, making the bacitracin platform even stronger. In addition, a world-wide sales and marketing organisation for finished products was included in the A.L. family, strengthening our original core business.

### 1984: Going public

The acquisition of Dumex was backed by a refinancing plan involving listing A.L. Laboratories on the American stock exchange in the US. We became the first Norwegian company to successfully go public in the US with a subsidiary.



A strong American base was and is key to global success. The ingredients for growth, strategic acquisitions and new initiatives, were coupled with persistence and a strong will to succeed.

### 1986: A new listening post

A.L. Laboratories acquired Parmed Pharmaceuticals, a telemarketing and distribution company of generics.

### 1987: Moving into aquatic health

This year, we launched the first vaccine against cold water vibrosis in salmon, the first product in a new business sector at that time enjoying a strong growth potential.

### 1987: A new pillar

Barre National, a leading US manufacturer of liquid generic pharmaceuticals, was put up for sale. Financed mainly through Norwegian loans, we won the bid. Soon after, "Black Monday" rocked the world stock markets, followed by a period of great uncertainty. Our company weathered the storm, and 5 months later our share price was back up and beyond previous levels, reflecting the potential of the acquisition.



"Survival of the fattest" was the issue – eat or be eaten. We followed up on our growth ambitions through strategic acquisitions. And after many years with international growth, we strengthened our home base and expanded capacity.

### 1989: NYSE year

We moved to New York Stock Exchange – the biggest and best exchange providing access to the world's largest finance market.

### 1990/91: Topicals and more antibiotics

We acquired NMC laboratories, a US company manufacturing topical preparations, broadening our reach in the American market. Our leading position was further strengthened through the acquisition of the antibiotics business and technology from Lundbeck Denmark.

### 1992: Increasing capacity

Following many years of steady growth in the sales of finished pharmaceuticals, the production capacity had to be expanded. A new plant was built at Lier outside Oslo, the most modern in its kind when it was opened on 26 February.

### 1993: 100% Band-Aid

We acquired 100% of Norgesplaster – strengthening this strong brand with its unique position in the Norwegian market.



### new order

- Large and complex company group
- Streamline and sharpen strategies

| 1994 | 1994 | 1994 | 1994 | Re-organised for power

**ALPHARMA** 

We had grown into a large group. Time had come to streamline the organisation and sharpen strategies to reap the benefits of our combined strength.

### 1994: Holding company

Our company in Oslo was split in two, and a holding company, A.L. Industrier, was established. The working company was sold to A.L. Laboratories in the US.

### 1994: Alpharma created

In the US, A.L. Laboratories was transformed into our new and present company – Alpharma Inc – consisting of two business segments, Animal Health and Human Pharmaceuticals. This company became the mother of all other Alpharma companies and the home of Alpharma headquarters.

### 1994: Re-organised for power

Through this reorganisation, a transparent and efficient group structure was created, where all companies are subsidiaries of the same mother company – which in turn is controlled by its major shareholder, the holding company AL Industrier (AL Industries).



Within Human Pharmaceuticals our new goal was to become a world leader in generics, and to get there through growth based on acquisitions.

### 1998: Stronger with Cox

The first step was the acquisition of Cox Pharmaceuticals, a leading UK based generics company with a long and impressive history, a strong product line, and a strong position in one of Europe's largest and most advanced generics market.

### 1998: Active Pharmaceutical Ingredients (API) in parallel

On the fine chemicals side, production capacity was stretched. In response, the API manufacturer SKW Biotechnologiai, Hungary was acquired.

### 1999: European expansion

Following the Cox acquisition, the next move was to get strong footholds in the two other large European markets, Germany and France. In Germany, Isis Pharma was acquired, in France Jumer Pharmaceuticals.



- Break down barriers
- One company

	2000 New management focus	2000 Doubling animal health	2001 One company	2001 Rolling out accessible medicine
_	ALIDILLABA			_

ALPHARMA

A strong corporate brand is a key to differentiation and effective marketing. Alpharma decided to become the company that breaks down barriers between people and medicine - that makes medicine accessible.

### 2000: New management focus

Ingrid Wiik, who had joined our company in 1983, and who had played a key role in developing the accessible medicine strategy, became President and CEO of Alpharma Inc. Einar W. Sissener is Chairman of the Board of Directors.

### 2000: Doubling animal health

Through the acquisition of Roche's animal health business, we more than doubled the sales volume in this segment, and strengthened our position as a global leader in medical feed additives for livestock and poultry.

### 2001: One company

All human pharmaceutical companies changed name to Alpharma – leveraging the strength of one strong brand across all markets.



In challenging times at the beginning of the new millennium, we rely on the values and spirit that have taken us through 100 rewarding years: an open attitude, the ability to generate new ideas and make brave moves, persistence and ability to think long-term – as well as a strong determination to succeed.

### 2001: Major step in generics

Based on our strong position in the US market for generic liquid and topical pharmaceuticals, we made our largest acquisition ever: Faulding generic pharmaceuticals business – providing access to the fast-growing solid dose market.

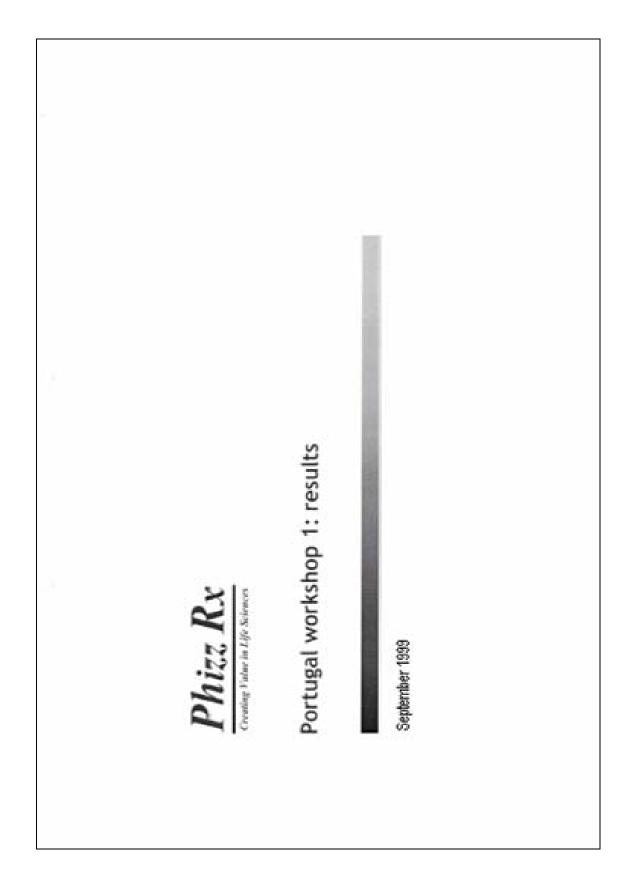
### 2002: New territories

The Faulding acquisition brought us more than 1,000 new colleagues, significant generics expertise and a potent product portfolio. It also provided an important foothold in the large Chinese market, with interesting aspects relating to future production of pharmaceuticals.

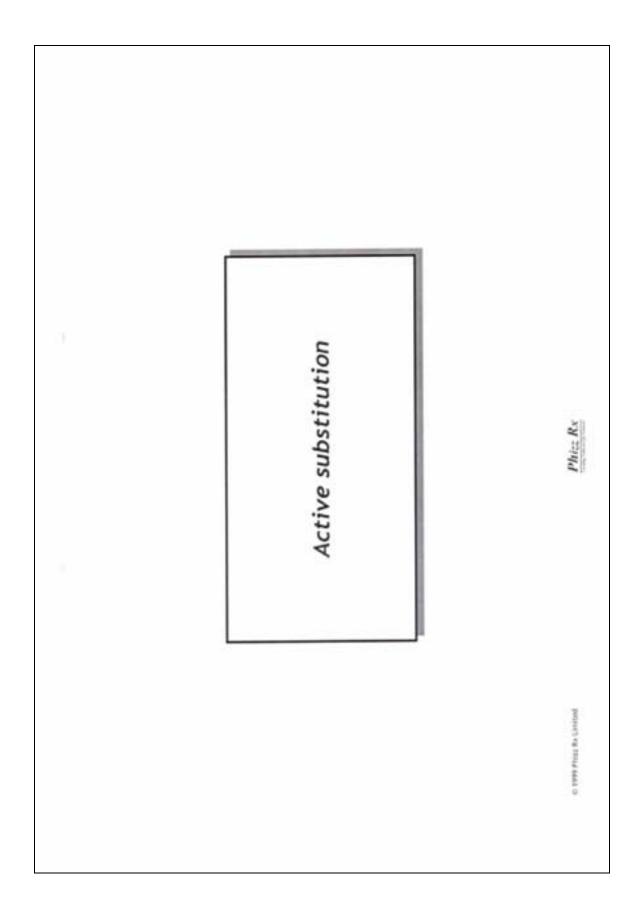
### 2003: Celebrating 100 years

On June 8 Alpharma celebrates its 100<sup>th</sup> anniversary and a rich and rewarding history. Today, we are a leading global player in our field – doing business in more than 60 countries and leveraging the expertise of close to 5,000 employees world-wide, in our continuing quest for new opportunities and profitable growth.

### APPENDIX 3 - Portuguese BSC Implementation Workshop Conclusions



ur .	arket	Phiz Rx
* Dofferit culteriffich	- Structure of the market - Strategies - Issues	© 1999 Phigs Sa Limited



branded product on the prescription. The GP will tick a box on the prescription to indicate that he is happy for a generic product to be substituted. Pharmacists will only be able to The Portuguese government is expected to draw up substitution legislation during the A system of active substitution is expected to be put in place. The GP will write the Branded originals and branded generics. Generics in this scenario will be branded by Dectard. substitute the prescribed compound for another version if the GP ticks the box company name rather than product name, I.e. Dumex's ranitidine. Legislation is expected to be implemented in mid-2001. Active substitution - market structure Phizz Rx period 2000-2001. Product types Legislation Active substitution O 1999 Philip Rs Limited

In Portuguese government is expected to encourage generic prescribing through close monitoring of GP drug spending. There are systems already in place within the Portuguese healthcare system that allow the monitoring of budgets at a regional level and at the level of medical centres.  The government is not, however, expected to impose on GPs a system of incentives or penalties for under-spend and over-spend, respectively, of individual drug budgets.	Incentives	<ul> <li>The key decision maker will be the GP. The pharmacist will play a role if the GP states on the prescription that substitution is allowed. However, this is not expected to happen in the majority of cases.</li> </ul>	Decision maker
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Active substitution

# Active substitution - market structure

# Related issues

### - Lobbying

Alpharma Portugal needs to investigate the possibility of lobbying the government to proceed to default substitution as quickly as possible. This could be done in association with other generics companies in Portugal. Another option is to support regional pilot schemes.

# Pharmaceutical company incentives

At the moment, GPs receive unofficial funding by pharmaceutical companies which promote pharmaceutical company handouts or implement penalties/incentives of a sufficient level to the prescribing of branded original products. In order to promote generic prescribing in this environment, the government has to either enforce the existing legislation outlawing outweigh the incentives offered by pharmaceutical companies.

## - Reference lists

One way of controlling GP drug spend is by using reference prescribing lists. National lists are improved monitoring of GP prescribing behaviour and would also allow government legislation decentralise these reference lists and enforce them at a regional level. This would allow currently in place for several conditions but these are largely ignored. One option is to to be rolled out gradually throughout Portugal's five regions.

Dooler Phies Rx D 1999 Phizz Rs Umbed

<ul> <li>There are two key conditions to opening an effective generics market:</li> <li>First, legislation must allow the use of generic products</li> <li>Second, incentives must exist to encourage the decision makers, typically GPs or pharmacists, to prescribe or dispense generic products</li> </ul>	
<ul> <li>First, legislation must allow the use of generic products</li> <li>Second, incentives must exist to encourage the decision m prescribe or dispense generic products</li> </ul>	generics market:
to the and the the transfer and the same than the same and the same	akers, typically GPs or pharmacists, to
- Active substitution provides only the first of these two conditions	o conditions
<ul> <li>The experience in Finland is that few GPs tick the box on the prescription to allow generic substitution</li> </ul>	x on the prescription to allow generic
<ul> <li>Younger GPs are more likely to tick the box</li> </ul>	
<ul> <li>In Finland they are trying a system of 'partnering' or 'bridging' to make the most of the situation.</li> </ul>	'bridging' to make the most of the
<ul> <li>Try to get GPs and pharmacists who believe in generics to work together to prescribe and dispense more generics. These are effectively agreements between GPs and pharmacists in a locality</li> </ul>	work together to prescribe and dispense I GPs and pharmacists in a locality
<ul> <li>It is unlikely that the active substitution model will result in a large generics market in Portugal unless it is accompanied by financial incentives for the decision maker(s)</li> </ul>	will result in a large generics mark incentives for the decision maker
Contract to Liverbad	Doe Rorf

Active substitution

# Strategies for the Portuguese generics market

### Customers

- Sales force strategy
- The sales force will be split into hospital reps and GP / pharmacist reps. The hospital market demands a certain proportion of our sales resource since:
- Alpharma Portugal has experience of selling generics to hospitals and can use this channel to feed through its new generic products
- With new products such as vancomycin about to be launched, the hospital sector will be an important source of revenue during the changeover to a full generics company.
- · The rest of the sales force will divide their time between detailing GPs and pharmacists in the same catchment area.
- It is proposed that the sales force will be responsible for both Gx and Rx products. The rationale for this is that separate Gx and Rx sales forces would require significant investment and may be operationally inefficient
- This point needs to be thought about in more detail. It may be worth thinking about the ideal strategy (i.e. given no investment restrictions what would the sale force look like) and then working back from there if we need to We should target GPs and pharmacists in the same local areas. In this way we may be able to
- The coverage of the sales force could be optimised by targeting health centre purchasers as well as individual GPs.

establish local groups of generics users (c.f. 'bridging' in Finland)

Dochel Phis: Rx O 1999 Phizz & Limited

Strategies for the Po	the Portuguese generics market
<ul> <li>Customers</li> </ul>	
<ul> <li>Profiling and segmentation of GPs</li> </ul>	of GPs
<ul> <li>We need to segment GPs to identify the 'be structure is based on the following criteria:</li> </ul>	<ul> <li>We need to segment GPs to identify the 'best' customers for generics. One segmentation structure is based on the following criteria:</li> </ul>
<ul> <li>Original Product prescribe</li> </ul>	Original Product prescribers vs Copy Product prescribers
- Positive attitude towards	Positive attitude towards generics vs negative towards generics
. GPs need to be profiled so	<ul> <li>GPs need to be profiled so that we can assess their likelihood to prescribe generics</li> </ul>
<ul> <li>Profiling should start in January 2000</li> </ul>	uary 2000
<ul> <li>We may be able to use the</li> </ul>	We may be able to use the ETMS system to capture data on GPs and use this for profiling
<ul> <li>We can use Decubal to build relationships with pharmacists</li> </ul>	lationships with pharmacists
<ul> <li>Decubal is popular with phar pharmacists.</li> </ul>	<ul> <li>Decubal is popular with pharmacists and can be used as a way of commencing dialogues with pharmacists.</li> </ul>
<ul> <li>Wholesalers have little power in this scenario unless:</li> </ul>	n this scenario unless:
<ul> <li>Pharmacy ownership laws ch</li> </ul>	Pharmacy ownership laws change and wholesalers acquire pharmacy chains
<ul> <li>Wholesaler consolidation increases power</li> </ul>	eases power
<ul> <li>Pan-European wholesalers st</li> </ul>	Pan-European wholesalers start to negotiate at European level

Favour Do not favour generics generics	cribers Primary targets Least attractive	Secondary Potential longer targets term customers
	Original Product Prescribers	Copy Product Prescribers

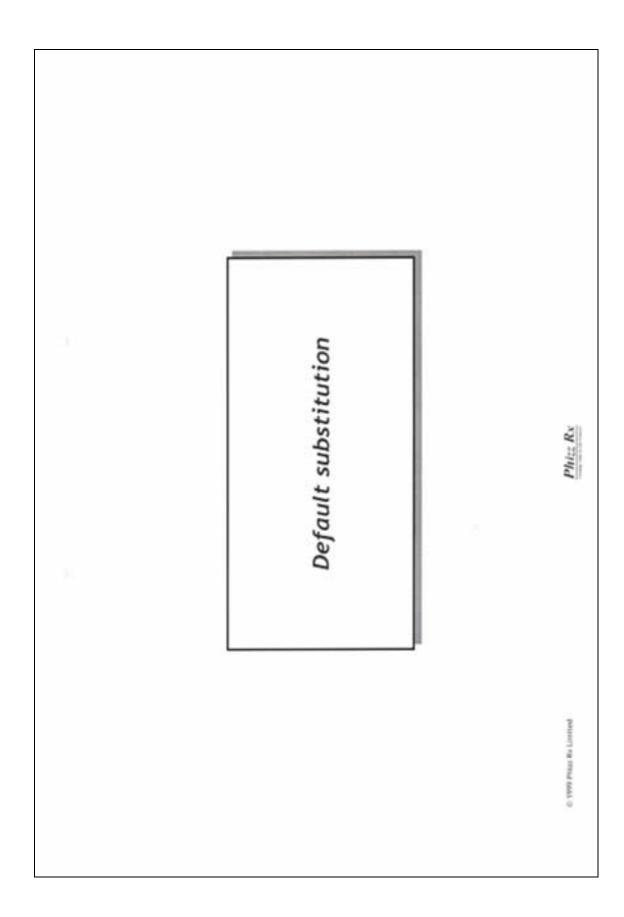
	r the Portuguese generics market	
• Products		
<ul> <li>There are a number of alter portfolio;</li> </ul>	There are a number of alternative approaches that we can take with regard to the product portfolio:	o the product
· We can establish a large full-range portfolio so that we	ange portfolio so that we	
<ul> <li>We can have a small portfolio expiries)</li> </ul>	small portfolio of the most important generics (the biggest sellers and recent patent	recent patent
<ul> <li>We can focus on the most attractive therapeutic areas</li> </ul>	active therapeutic areas	
<ul> <li>We need to establish wheth how large a portfolio and its</li> </ul>	We need to establish whether we can generate enough revenue from a narrow portfolio and how large a portfolio and its composition we need to be attractive to GPs and pharmacists	w portfolio ar d pharmacists
- Product sourcing		
<ul> <li>We will need to source produ parties</li> </ul>	<ul> <li>We will need to source product from other Alpharma companies, notably Cox, and possibly from third parties</li> </ul>	sibly from thire
<ul> <li>Portugal has no special req</li> </ul>	Portugal has no special requirements for the actual drugs so bulk supply from Cox is possible	possible
<ul> <li>Product will be sourced in bu</li> </ul>	sourced in bulk and packaged in Portugal	
© 1999 Philli & Unitled	Phiz: Rx	Doc Ref

	<b>Broad Portfolio</b>	Narrow Portfolio
Strengths	Great marketing strength     Greater motivation for sales force?	Concentrate efforts on high volume, newly off patent products     Alpharma's product pipeline supports this
Issues	How will we fill the product portfolio?     Competitors, such as Ratiopharm, will have larger portfolios than ours     Can we make sufficient margin on those products we need to 'licence in'	How large a portfolio do we need to generate enough sales and profit?     Will a narrow product portfolio make us attractive to GPs and pharmacists?
D 1999 Phizz Ne Comined	Phiz Rx	Darflet

· C	
There are 4 companies with a presence	mperition There are 4 companies with a presence in the Portueuese retail generics market
Merck Generics and Ratiopharm are the most aggre image and have reps are out talking to pharmacists	and Ratiopharm are the most aggressive. The are already investing in their corporate reps are out talking to pharmacists
<ul> <li>These two companies are expected to take the lead in the generics market.</li> </ul>	take the lead in the generics market.
<ul> <li>How can we compete against Merck Generics and Ratiopharm, point to generics expertise, have large product portfolios, etc.</li> </ul>	How can we compete against Merck Generics and Ratiopharm, given that both these companies can point to generics expertise, have large product portfolios, etc.
<ul> <li>Alpharma Portugal has local market ki competitive advantage</li> </ul>	Alpharma Portugal has local market knowledge and customer relationships that we need to use as our competitive advantage.
<ul> <li>The combination of local knowledge, Alpharma in Portugal an attractive pa</li> </ul>	The combination of local knowledge, customer relationships and an existing sales force may make Alpharma in Portugal an attractive partner in 'contract deals' with other manufacturers
<ul> <li>New market entrants</li> </ul>	
<ul> <li>Alpharma Portugal must consider how many international compani businesses in Portugal once the market is proven to be profitable.</li> </ul>	Alpharma Portugal must consider how many international companies are expected to register generics businesses in Portugal once the market is proven to be profitable.
<ul> <li>Copy products</li> </ul>	
<ul> <li>Branded copy products are likely to be supported by the Portuguese them are owned by indigenous companies. It is therefore expected marketed in Portugal, at least during the active substitution phase.</li> </ul>	Branded copy products are likely to be supported by the Portuguese government since the majority of them are owned by indigenous companies. It is therefore expected that they will continue to be marketed in Portugal, at least during the active substitution phase.

2 Dumex has historically positioned itself as a provider of quality products. It could build on Use Alpharma name? Opportunity to develop a new brand? Access existing Alpharma identity? Can Competitors such as Merck Generics colour-code their products according to therapeutic this reputation by entering the Portuguese generics market with molecules perceived to Dumex name? Is the Dumex brand relevant to generics? How easy will it be to transfer the Dumex significant in the Portuguese market as generics are still perceived by GPs to be a lower have high therapeutic value, such as fluoxetine. A reputation for quality is especially reputation among pharmacists and GPs in Portugal, it is not associated with generics. area and Alpharma Portugal needs to develop an approach to branding their generics Alpharma has to decide how to brand itself given that, although Dumex has a good Docker Strategies for the Portuguese generics market we manage two company brands in the market place? Phies Rx quality proposition than branded products. There are two options: brand to generics? Dumex/Alpharma Brand image business. Packaging Active substitution © 1999 Phics fo Unified Quality

	f the ucts?	2
	Portugal to prescribe their branded original products. Dumex believes that GP endorsement of its current portfolio is driven by the quality of the product and the high quality service of the sales force. Will Dumex be able to apply this high value proposition with its generic products?	Doctor
ét	h its gen	
mar	elieves t the high	
Other issues with the Portuguese generics market	Dumex b duct and e propos	
se ge	oducts. the provigh valu	Phie Rx
,	iginal pr uality of oly this h	Ph
	by the de to app	
	their branch are branch are be ab	
es wit	escribe trollo is	
neel .	gal to pri	to Company
Otner	Portug its cur sales f	© 1999 Priza R. Laminel



|--|

<ul> <li>I he shape of the Portuguese market (phase II)</li> <li>Decision maker</li> <li>The decision making role will shift from the GP to the pharmacist since the pharmacist will have the power to substitute any prescribed compound for an alternative generic version unless specifically instructed otherwise by the GP.</li> </ul>		0 1999 State St. Limited
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Default substitution

# Strategies for the Portuguese generics market (phase II)

### Customers

- The Portuguese pharmacist market is perceived to be primarily motivated by profit. Alharma therefore needs to use a range of commercial strategies in order to secure pharmacy market share:
- bonuses (for prescribing individual products and the range)
- long term contracts
- discounts
- operational incentives (e.g. consignment flexibility)
- We need to decide how to 'pay' discounts to the pharmacists. Do we give the discount to the wholesaler to pass on or do we give it direct to the pharmacist. The latter provides more control over the actions of the pharmacist
- competitors with significantly larger generics portfolios. These competitors may not be able to compete with Alpharma at the level of individual products but they may gain exclusive relationships with pharmacists on the basis of being able to supply a much wider range of However, Alpharma may not be able to compete on price given that it will be faced with products.
- Alpharma should use service as a leverage point with the pharmacists. A high service level can be achieved by ensuring quality and timeliness of supply, and also by maintaining a continuous dialogue with the pharmacist via telephone, visits, and IT systems.

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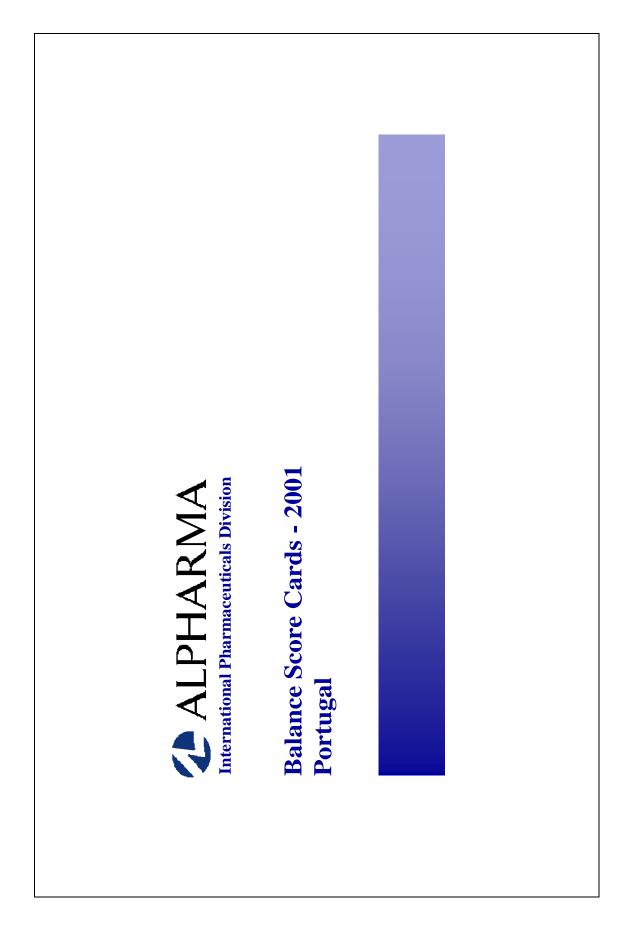
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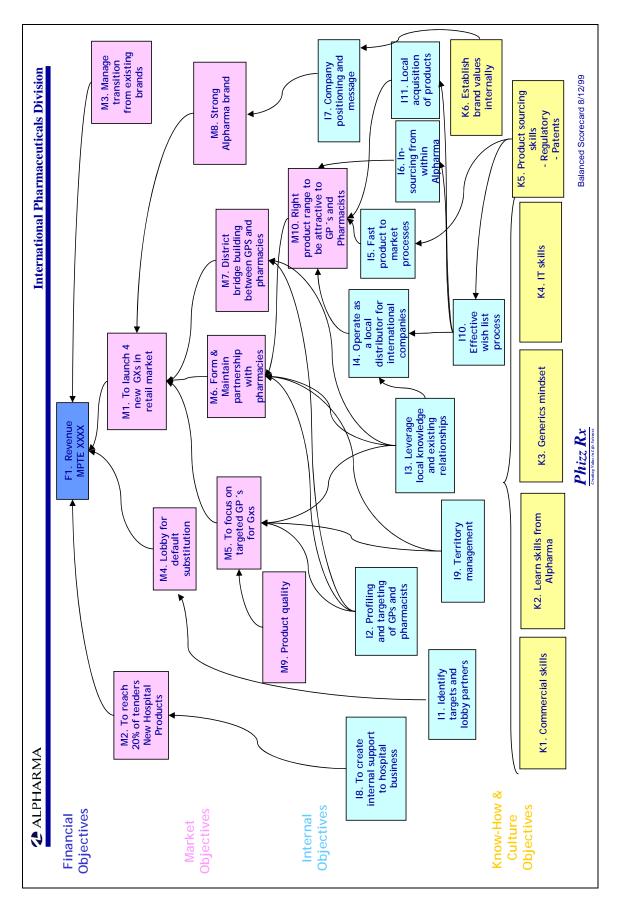
### ħ Other elements such as brand Docher Highly commercial are important Strategies for the Portuguese generics market margin, product range, Package that includes: service, delivery, etc. 'The best deal' Phiez Rx possibility is based on how commercial the pharmacists. One segmentation for We will need to pharmacist is ... decide on an appropriate O 1999 Phus Ry Limited

Ñ Alpharma should investigate other ways of profiling and segmenting the pharmacist market. their sales effort with pharmacists. By partnering with a large wholesaling group, Alpharma Alpharma intends to build relationships with wholesalers through financial incentives such Alpharma must also develop strategic relationships with wholesalers in order to reinforce coverage of pharmacy groups and also their geographical coverage. This analysis will be Alpharma needs to profile and segment available wholesaler partners in terms of their Alpharma needs to target pharmacy groups and cooperatives as a means of efficiently Alpharma can use Decubal as a means of enhancing its relationship with pharmacies. Strategies for the Portuguese generics market (phase II) can achieve a larger coverage of pharmacists, pharmacy groups, and pharmacy co-Docker used to identify 2/3 partners to achieve maximum market coverage. reaching the highest number of pharmacy outlets. Phis: Rx as terms of trade operatives. Default substitution Customers C 1999 Phizz By Limited

t (phase II)		Daviser 23
Strategies for the Portuguese generics market (phase II)  • Product  • Distribution	Competition	Phier Ry
Strategies for the  Product  Distribution	• Competition	O 1999 Philip Rs Limited

**APPENDIX 4 - Balanced Scorecard Alpharma ApS** 





PORTUGAL - BALANCE SCORECARDS	International Pharmaceuticals Division ECARDS	ceuticals Divisio
Objectives (Financial)		
Objective '000 PTE	tive	Responsibility
F1. REVENUE	Target - x.xxx.xxx	Sales Director
Existing Products Generic Products	• XXXXXXXX •	
<ul><li>F2. COSTS</li><li>Marketing</li><li>Selling</li><li>Distribution</li></ul>	Target - xxx.xxx  • xxx.xxx  • xxx.xxx  • xxx.xxx	Sales Director
F3. CONTRIBUTION  • % of Sales	Target - xxx.xxx  • xx.xx%	Sales Director
	$Ph_{izz}Rx$ Balan	Balanced Scorecard 8/12/99

Objectives / Init	Objectives / Initiatives (Market)	
Objective	Initiative	Responsibility
M1. To launch 4 new GXs in retail market	<ul> <li>Bioclavid - 1st Quarter</li> <li>Ranitidine / Enalapril / Metformin - 4th Quarter</li> </ul>	Product Manager / ASMs / SalesReps
M2. To reach 20% of tenders with new hospital products	<ul> <li>Investigate Tender Market - competitor 's pricing/actions</li> <li>Follow-up on tenders 'decision</li> <li>Influence decision-makers</li> </ul>	Sales Reps ASMs ASMs / Product Manager
M3. To manage transition from existing brands	<ul> <li>Establishing correct promotional strategy and balance promotional support between Branded and Generic products.</li> </ul>	Product Manager
M4. To lobby for default substitution	<ul> <li>Influence Decision-makers / Influencers</li> <li>Cooperate with other suppliers of generics</li> </ul>	Sales Director Sales Director
M5. To focus on targeted GP's for GX's	<ul> <li>GP 's generics 'prescribers:         <ul> <li>Double calls</li> <li>Medical Meetings</li> </ul> </li> </ul>	Sales Reps
M6. Form & Maintain partnership with Pharmacies	<ul> <li>Build product knowledge in Pharmacies</li> <li>Increase generics awareness in Pharmacies</li> </ul>	Sales Reps
	Phi: Ry	00/01/0

Objective  M7. District bridge building between GP 's and Pharmacies  M8. To implement Alpharma Branding  M9. Product Quality  Objective Initiative Initiative  Create meetings with G  Encourage information  Encourage information  Actions as per the Brar Alpharma General Alpharm		
t bridge of the periods of the period of the periods of the period of the periods of the period of the periods of the period of the periods of the period of the peri		
e gri		Responsibility
• •	Create meetings with GP´s together with Pharmacies Encourage information flow GP´s and Pharmacists	Sales Reps
•	Actions as per the Branding Alpharma local Plan	Sales Director
supporting Alpharma´s products quality • To publish advertising and news on magazines	Present Alpharma Generics portfolio to GP's and Pharmacies orting Alpharma's products quality To publish advertising and news on Medical and Pharmacies magazines	Sales Reps Product Manager
<ul> <li>To build a competitive prod demand, the customers need attractive to GP's and Pharmacists</li> <li>To build a competitive prod demand, the customers need attractive to GP's</li> <li>Expand into new categories</li> </ul>	To build a competitive product range, meeting the market demand, the customers needs and competitors portfolio Increase product pipeline Expand into new categories	Sales Director / Product Manager/ Regulatory Manager

Objective Initiative (Internal)		
	(Internal)	
	Initiative	Responsibility
I1. Identify targets and Solution of Solutions partners Lobby partners Lobby Partners Solution Solutio	Select the right target groups - Industry/Pharmacy/Infarmed/Politicians/Patients Lobby Opinion-makers/Decision-makers	Sales Director Sales Director / Regulatory Manager
12. Profiling and targeting of GP's and Pharmacists • C	Use ETMS for customers profiling Create an ETMS pharmacy database Customer segmentation by product groups	Reps / ASMs ASMs Reps
I3. Leverage local Provided and existing Increasionships Contractionships Provided and existing Provided Appendix Provided	Focus Sales Force on getting GP profile data during medical calls Increase contacts with Wholesalers Create Decubal meetings with Pharmacies to present Alpharma as a Company of GX´s	Reps ASMs ASMs
<ul> <li>14. Operate as a local distributor for international companies</li> </ul>	Develop cooperation with Biochemie and Hykma Search for new alliances	Sales Director / Controller
15. Fast product to market Deprocesses	Build Regulatory skills at local level Develop patent expiry intelligence Focus on New Products	Regulatory Manager Product Manager Managers

Objectives/Initiativ	ives (Know-How / Culture)	
Objective	Initiative	Responsibility
K1. To develop commercial skills	<ul> <li>Commercial attitude/awareness</li> <li>Training in negotiation skills - Sales Force</li> <li>Training in customer assistance - secretaries</li> <li>Product training on GX 's for all staff</li> <li>Fieldwork for ASM 's in Alpharma subsidiary (GX 's)</li> </ul>	Managers ASMs Controller Product Manager
K2. To learn skills from Alpharma	<ul><li>Improve work with Lotus Notes Database</li><li>To attend international Meetings</li></ul>	Controller
K3. To increase Generics mindset	<ul> <li>Generic market knowledge through training</li> <li>Hold a forum on GX's - all staff</li> <li>Maintain the section on GX's in ALPHA</li> <li>Encourage idea generation and feedback to management</li> <li>Collect GX's competitors data and promotional material</li> </ul>	Managers Sales Director Managers
K4. To improve IT skills	<ul><li>Training for Sales Force - Excel</li><li>Database management</li><li>Training in business systems</li></ul>	Reps Controller Controller
K5. To improve Product sourcing skills K6. To establish new brand values internally	<ul> <li>Training in Regulatory and Patents</li> <li>Follow-up on ASAP concept</li> <li>Implement internal Branding plan</li> <li>Motivational activities for employees</li> </ul>	Controller Regulatory Manager / Product Manager Sales Directot / Managers

PORTUGAL - BALANCE SCORECARDS	CARDS	
Objectives/Initiatives (Internal)	ves (Internal)	
Objective	Initiative	Responsibility
16. In-sourcing from within Alpharma	<ul> <li>Create and manage local product wish-list</li> <li>Create business cases - market potential/profitability</li> </ul>	Sales Director Product Manager
I7. Company positioning and message	<ul> <li>Communication strategy:</li> <li>Alpharma, Accessible Medicine</li> <li>Alpharma, Generics Company</li> <li>(promotion to all customers and public)</li> </ul>	Sales Director
<ul><li>18. To create internal support to hospital business</li></ul>	<ul> <li>Strengthen the existing local task-force for support hospital business</li> <li>Reinforce cooperation with Distributor</li> </ul>	Product Manager Controller
19. Territory Management	<ul> <li>Develop the concept of Territory Management through training and objective-setting for the Sales Reps</li> </ul>	ASMs
110. Effective wish list process	<ul> <li>Create a New Products task-force (weekly meetings) to assure a permanent analysis of the market opportunities</li> </ul>	Sales Director
I11. Local acquisition of products	<ul> <li>Develop contacts in order to search for New Products acquisition</li> </ul>	Sales Director / Controller

International Pharmaceuticals Division

# 21 Measures cover the 5 key 'Themes'

Objective type	Market	Supply chain	Customer	Cost efficiency	Portfolio
Market outcome	Ranking against competitors by volume and value     Share of each customer's sales				
Internal Process		Sales forecast accuracy     Order fulfillment     accuracy     Picking arcuracy	Number of partners' service contracts     Frequency of meetings with key partner personnel     External audit of our performance against partner service contract     Proportion of partner base profiled and stratified     Sercentage of our sales accounted for by partners     A Penetration of each partner's outlets	Performance against department cost budget     Value of penalties incurred	1. Value of sales lost to competitors due to portfolio gapt 2. Wish list updated at agreed intervals 3. Maximise gross margin on existing portfolio 4. Partners' rating of our product mix 5. Percentage of our range taken by each partner
Know-How/ Culture		1. Percentage of staff attending production training	Percentage of staff attending account management training		
	1.6	erformance appraisals to co	Performance appraisals to cover communication, entrepreneurship and customer orientation	eneurship and customer orien	Mation

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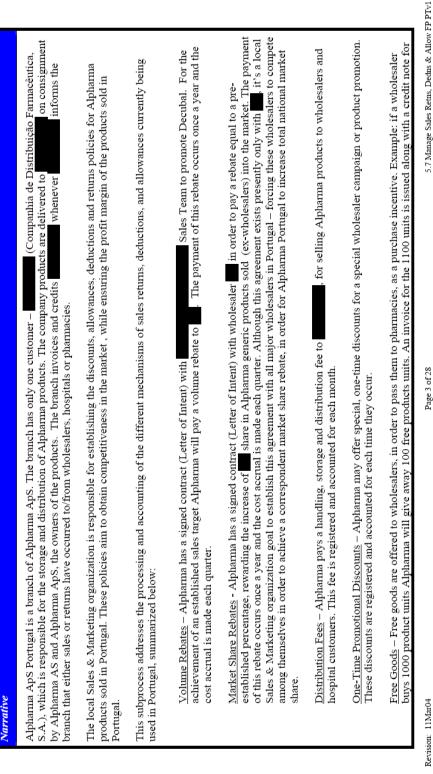
APPENDIX 5 - Sarbaynes-Oxley Process Documentation Alpharma Portugal

ISBON	Manage Sales Returns, Deductions, & Allowances	Page 1 of 28
CEUTICALS – L	Manage S	15 jan 03 31 jan 03
<b>GENERIC PHARMACEUTICALS – LISBON</b>	5.7	Process Owner: Version #:1 Freeze Date: Revision: 11Mat04

5.7 Manage Sales Returns, Deductions, & Allowances		ĸ	ĸ	S	9	7	co	co	6	10	10	22	23	24	25	5.7 Manage Sales Retns, Dedus & Allow FP PTv1
5.7 Manage Sales F	TABLE OF CONTENTS	uctions & Allowances					lications	tors	Summary of Objectives, Risks, and Control Activities	ent	ent					Page 2 of 28
		Manage Sales Returns, Deductions & Allowances	1.1 Subprocess Narrative	1.2 Roles & Responsibilities	1.3 Process Objectives	1.4 Activity Map	1.5 Financial Reporting Implications	1.6 Key Performance Indicators	1.7 Summary of Objectives,	1.8 Risk & Control Assessment	1.8 Risk & Control Assessment	1.9 Business Applications	Section 404 Remediation	Improvement Opportunities	Appendix	
<b>⊘</b> ALPHARMA		Ť											4	3.	4	Revision: 11Mar04

## Manage Sales Returns, Deductions & Allowances

#### 1.1 Subprocess Narrative



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#### Jarrative

100 units.

Cash Discounts - Alpharma offers 3% cash discounts for payment of invoices within credit time (common practice in the Portuguese market). This discount is accrued for each month.

Volume Discounts - Alpharma offers a discount for wholesalers as a purchasing incentive for high volumes. This volume discount is directly expressed in the correspondent invoice.

Returns - Returns of expired products, returns for discontinued and damaged stock, and returns due to order fulfillment errors are processed according to local policy. Returns are registered as they occur and potential returns are accrued for each month.

According to the return nature, the company estimates these deductions and allowances at the time of sale based on the terms of agreements with customers and historical experience, and recognizes revenue net of these estimated costs. The Company and its auditors continually monitor the reasonability and adequacy of procedures used to estimate these reductions by comparison of estimated reductions to actual reductions. The Company accepts returns of expired, expiring, discontinued, and damaged finished products within its return goods policy. Local Sales & Marketing organization delegates in the responsibility for approxing returns of damaged/expired/discontinued product and for processing credits associated with those returns, whenever Alpharma internal policy applies. Returns may also be generated from order fulfillment and/or shipping errors. 5.7 Manage Sales Retns, Dedns & Allow FP PTv1 Page 4 of 28

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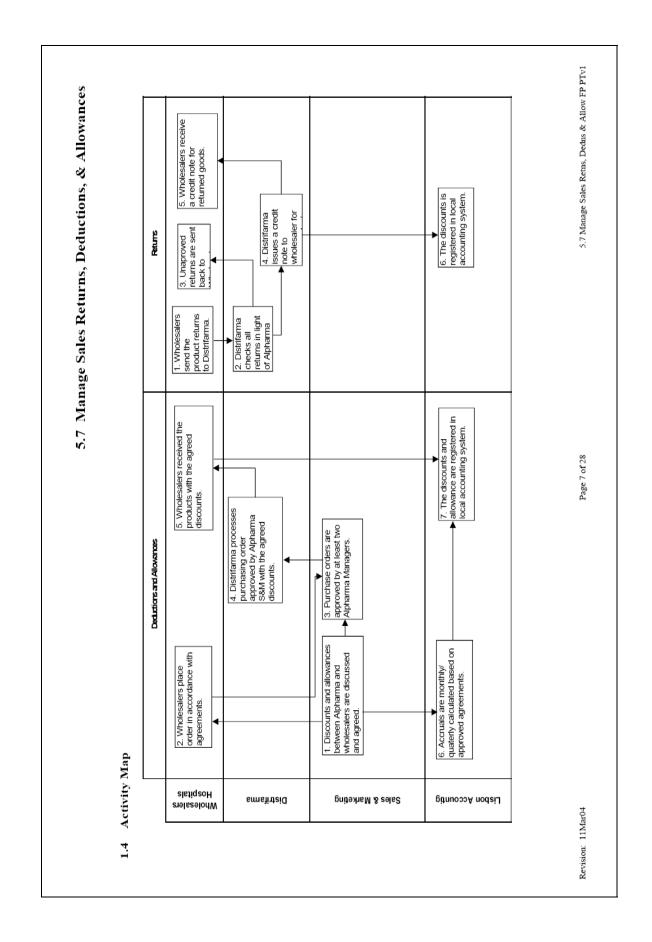
1.2 Roles & Responsibilities

Location	Name	Title	Key Role & Responsibility	Telephone	E-mail
Lisbon		Director, S&M	Responsible for all sales and marketing policies, procedures, and daily activities; establishes annual marketing and pricing strategy for each product and provides guidance on significant price and discounts issues.	351 21	
Lisbon		Area Sales Managers	Each is responsible for presenting the discount and rebates practiced by the company in Portugal and negotiating directly with the major wholesalers.	351 21	
Lisbon		Director, S&M Marketing Manager Head of Finance	Every single discount, rebate or deductions negotiated by the Area Sales Managers with the wholesalers (within the model guidelines define by local policy) have to be approved by, at least, two of the company Managers.	351 21	
Lisbon		Regulatory Manager	Responsible for authorizing the returns of products to enter the selling stock.	351 21	
Lisbon		Head of Finance	Manages and ensures appropriate implementation of all accounting policies (specifically revenue recognition, sales returns, deductions and allowances), and oversees all accounting activities for the company in Portugal.	351 21	

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Ref.	Ref. Objectives
0-1	O-1 Deductions and allowances are defined in accordance with local company policy and regulatory requirements.
0-2	O-2 Actual deductions and allowances are properly calculated, applied, monitored, and reflected in the sales and receivables records and the financial statements.
0-3	O-3 Reserves and expense accruals for deductions and allowances are adequate and properly recorded in the financial statements.
0-4	O-4 Customer returns are properly accrued, authorized, calculated, applied according to local policy, and recorded accurately in the sales and receivables records and the financial statements.

5.7 Manage Sales Retns, Dedns & Allow FP PTv1 Page 6 of 28 Revision: 11Mar04



#### 1.5 Financial Reporting Implications

Transactions	Туре	GAAP/ Policy Reference	Financial Statement Caption
Direct Payments/Credit memos	Routine	N/A	Accounts Receivable, Accounts Payable, Accrued Expenses
Indirect Payments	Routine	N/A	Accounts Payable, Accrued Expenses
Accruals for Returns, Deductions, & Allowances	Estimates	SEC - SAB	SEC - SAB Accrued Expenses, Revenue (deductions from)
		101	
		Corporate	
		Policy #10	

#### 1.6 Key Performance Indicators

Priority	Description	Definition	Tracked
Н	Rebates, Deductions and Allowances as a % of Revenue	Sales Discounts/Revenue	Y
Н	Audit issues	Number and impact of audit issues resulting from internal/external audits. Promptness in dealing with action following these audits.	Y
Н	Net Sales and Margin by Product	Net sales and gross margin (according to actual product standard cost)	Y

Legend: L=Low; M=Medium; H=High

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5.7 Manage Sales Retns, Dedns & Allow FP PTv1

#### 1.7 Summary of Objectives, Risks, and Control Activities

Obj.#	RF# C	Control Activity Description	Gap
0-1	Deductions a	Deductions and allowances are defined in accordance with local company policy and regulatory requirements.	
	RF-1 Pri	Pricing agreements negotiated with customers don't respect the local company policy and regulatory requirements.	
	CA-1	All agreements have to be reviewed and approved by (at least) two of the following managers Director S&M, Head of Finance and/or Marketing Manager.	404
0-2	Actual dedu and the fina	Actual deductions and allowances are properly calculated, applied, monitored, and reflected in the sales and receivables records and the financial statements.	
	RF-1 Co	Contractual agreements are not received or processed in a timely or accurate fashion, or payments are miscalculated, leading to misstatements of revenue and over/under payments to customers.	
	CA-1	Deductions and allowances are reviewed by the Head of Finance and are reviewed and approved by the Sales & Marketing Director prior to payment.	404
0-3	Reserves an	Reserves and expense accruals for deductions and allowances are adequate and properly recorded in the financial statements.	
	RF-1 Re im	Reserves for deductions and allowances are miscalculated based on inaccurate, incomplete, or untimely information, and are improperly reflected in the financial statements.	
	CA-1	Reserves and accruals for deductions and allowances are manually calculated monthly/quarterly (based on approved methodologies) by the Head of Finance and are reviewed and approved by the Sales & Marketing Director.	404
0-4	Customer re the sales and	Customer returns are properly accrued, authorized, calculated, applied according to local policy, and recorded accurately in the sales and receivables records and the financial statements.	
	RF-1 Un	Unauthorized returns are inadvertently returned to inventory or incorrectly applied to customer accounts.	
	CA-1	All returns are processed by in accordance with local returns policy and advance authorization by the Regulatory Manager is required every time the product is entering stock.	404

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1.8 Risk & Control Assessment

0-1	Deductions and allowances are structured in accordance with local company policy and regulatory requirements.	h loc	al co	mpa	ny policy and regulato	ory requirements.		
RF -1	Pricing agreements negotiated with customers don't respect the local company policy and regulatory requirments.	the lo	ocal	соші	pany policy and regula	atory requirments.		
CA-1	All agreements have to be reviewed and approved by (at least) two of the following managers Director S&M, Head of Finance and/or Marketing Manager.	wo of	the i	follo	wing managers Directo	r S&M, Head of Fir	nance and/or	
	Control "As Is" Rating 2							
Task	Description of Control Activity Procedures	Ů	X	Н	Job Position	References	Frequency	A
1	Policies and procedures regarding the review and approval of pricing terms and conditions (including tender and rebate offers, distribution fees, etc.) are maintained and updated as appropriate.	2 T			Sales & Marketing Director	Pricing Approval Policy and Procedures	As Required	M
2	Tender and rebate offers and other sales proposals to customer are developed and updated based on marketplace conditions, including competitive actions, product supply, and compliance with profitability.	1			Sales & Marketing Director Area Sales Managers Marketing Manager Head of Finance	Information collected in the market about the conditions practiced by other competitors	Quarterly	M
ю	Tender and rebate offers and other sales proposals to customer are reviewed for legal/regulatory compliance and approved/amended as appropriate.	'			Sales & Marketing Director Head of Finance	Sales Proposals	Per Deal	M

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... = no), T = Testing Template Type, AM = Automated or Manual control Column Legend: G = Gap ("S" = Sarbanes-Oxley Section 404, "O" = Operational), K = Key Control ("K" = yes,

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5.7 Manage Sales Retns, Dedns & Allow FP PTv1

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CA-1  CA-1  Deductions and allowan Manager. and are review  Control "As Is" Rating  Control of Control Activ  Task  Description of Control Activ  Policies and procedures reg approval of customer deducand updated as appropriate.  Distribution Fees: Definitiagement with  eterm of the contract and every the services rendered.								
Pol appi and Dis agar term then	Contractual agreements are not received or processed in a timely or accurate fashion, or payments are miscalculated, leading to misstatements of revenue and over/under payments to customers.	ers.	ır ac	cura	te fashion, or payme	nts are miscalculat	ed, leading to	
	Deductions and allowances are manually calculated monthly using supporting spreadsheets by the Business Support & Development Manager. and are reviewed and approved by the Sales & Marketing Director prior to payment.	s sup g Dir	portii	g sg	readsheets by the Burt to payment.	siness Support & De	velopment	
	s" Rating 2							
	Description of Control Activity Procedures		K		Job Position	References	Frequency	A M
	Policies and procedures regarding the processing, review, and approval of customer deductions and allowances are maintained and updated as appropriate.	2 -			Sales & Marketing Director	Deductions and Allowances Policy and Procedures	As Required	M
	Distribution Fees: Definitions of conditions and terms of the agreement with are discussed and agreed before the term of the contract and evaluated at light of market conditions for the services rendered.				Sales & Marketing Director	contract	As Required	M
3 The sinvoice verified and approved bas control excel spreadsheet.	The sinvoice, issued at the end of each month, is verified and approved based on the daily sales report and local control excel spreadsheet.	1			Head of Finance	Invoices and daily sales report	Monthly	M
The approved invoice is racreating s a journal entry.	The approved invoice is registered in the local accounting system, creating s a journal entry.				Head of Finance	Primavera Software	Monthly	M
The fee is reported to Almonthly report packing.	The fee is reported to Alpharma ApS, Denmark, as part of the monthly report packing.				Head of Finance	Excel spreadsheet	Monthly	M

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0-2	Actual deductions and allowances are properly calculated, applied, monitored, and reflected in the sales and receivables records and the financial statements.	pplied,	moi.	nitoı	red, and reflected in	the sales and receiv	ables records	
RF -1	Contractual agreements are not received or processed in a timely or accurate fashion, or payments are miscalculated, leading to misstatements of revenue and over/under payments to customers.	mely o ners.	r ac	cura	te fashion, or payme	nts are miscalculat	ed, leading to	
CA-1	Deductions and allowances are manually calculated monthly using supporting spreadsheets by the Business Support & Development Manager. and are reviewed and approved by the Sales & Marketing Director prior to payment.	ng supj ng Dir	porti	ng spric	preadsheets by the Bu or to payment.	siness Support & De	velopment	
	Control "As Is" Rating 2							
Task	Description of Control Activity Procedures	G I	KT		Job Position	References	Frequency	A M
w	One-Time Promotional Discounts: In the event of a promotional program, the wholesalers send a report of all products involved in an Alpharma pre-approved promotional campaign, detailed by SKU with quantity, price difference attached with an invoice or debit note.	ı		, ,	Area Sales Maneger Marketing Manager	One-Time Promotional Discount Reports	As Required	M
9	The one-time promotional discount reports are reviewed for price accuracy and agreed conditions, and any discrepancies are resolved with the retail chains.				Marketing Manager Head of Finance	One-Time Promotional Discount Reports	As Required	M
7	The reported is appropriately approved and the invoice or debit note is registered in the local accounting system, creating s a journal entry.	,			Head of Finance	One-Time Promotional Discount Reports	As Required	M
∞	The discount is report to Alpharma ApS, Denmark, as part of the monthly report packing.				Head of Finance	Excel spreadsheet	Monthly	M
6	Free Goods: In order to keep minimum competitive level and according to the usual market practices, business Alpharna conditions are periodically agree crating a business model registered and communicated as appropriated.	-			Sales & Marketing Director	Businnes Model	As Required	M
Revision: 11Mar04	04 Page 13 of 28	of 28				5.7 Manage Sale	5.7 Manage Sales Retns. Dedns & Allow FP PTv1	, and

5.7 Manage Sales Returns, Deductions, & Allowances

RF -1	Contractual agreements are not received or processed in a timely or accurate fashion, or payments are miscalculated, leading to misstatements of revenue and over/under payments to customers.	nely ners.	or ac	centr	ate fashion, or payme	nts are miscalculat	ed, leading to	
CA-1	Deductions and allowances are manually calculated monthly using supporting spreadsheets by the Business Support & Development Manager.and are reviewed and approved by the Sales & Marketing Director prior to payment.	ng sup ng Di	pport irecto	ting or pr	spreadsheets by the Bu ior to payment.	siness Support & De	evelopment	
	Control "As Is" Rating 2							
Task	Description of Control Activity Procedures	ů	<b>X</b>	H	Job Position	References	Frequency	A
10	Free goods are used as a purchase incentive to wholesalers and/or pharmacies, in order to pass the to pharmacies. In accordance with local business models the Area Sales Manager negotiates with wholesalers, using the free goods as a sales incentive.				Area Sales Managers	Deductions and Allowances Policy and Procedures	As Required	M
11	In order to receive free goods, to wholesalers have to place with the Area Sales Managers a purchase order.	ı		-	Area Sales Managers	Purchase Order	As Required	M
12	Every single attributions of free goods agreed by the Area Sales Managers with the wholesalers/pharmacies (within the model guidelines define by the local business model) have to be revised and approved by, at least, two of the company Managers.	1			Sales & Marketing Director Area Sales Managers Marketing Manager Head of Finance	Sales Proposals Written comunication (email) from ASM requiring the approval of each deal.	Per Deal	M
13	Instructions to to execute approved deal with an wholesaler and/or pharmacy.	ı			Head of Finance	Written comunication (email or fax) with signed sales proposals	Per Deal	M

0-2	Actual deductions and allowances are properly calculated, applied, monitored, and reflected in the sales and receivables records and the financial statements.	plied	l, mo	nito	red, and reflected in t	he sales and receiv	vables records	
RF -1	Contractual agreements are not received or processed in a timely or accurate fashion, or payments are miscalculated, leading to misstatements of revenue and over/under payments to customers.	nely iers.	or ac	curs	ıte fashion, or paymer	nts are miscalculat	ted, leading to	
CA-1	Deductions and allowances are manually calculated monthly using supporting spreadsheets by the Business Support & Development Manager.and are reviewed and approved by the Sales & Marketing Director prior to payment.	ig suj ig Di	porti	ing s r pri	preadsheets by the Bus or to payment.	iness Support & De	evelopment	
	Control "As Is" Rating 2							
Task	Description of Control Activity Procedures	G	KT		Job Position	References	Frequency	A
14	A credit note is issued to attribute the discount correspondent for the free goods.				Head of Finance	Primavera Software	Per Deal	M
15	The discount corresponding to the free goods is reported to Alpharma ApS, Denmark, as part of the monthly report packing.				Head of Finance	Excel spreadsheet	Monthly	M
16	Volume Discounts: Business model regarding volume discounts are maintained and updated as appropriate.				Sales & Marketing Director	Deductions and Allowances Policy and Procedures	As Required	М
17	Volume discounts are used as a purchase incentive to wholesalers. In accordance with local policy the Area Sales Manager negotiates with wholesalers, using the volume discounts as a sales incentive for high volume purchases.	1			Area Sales Managers	Deductions and Allowances Policy and Procedures	As Required	M

5.7 Manage Sales Retns, Dedns & Allow FP PTv1 Page 15 of 28 Revision: 11Mar04

0-2	Actual deductions and allowances are properly calculated, applied, monitored, and reflected in the sales and receivables records and the financial statements.	plied,	шош	itored, and reflected i	the sales and receiv	ables records	
RF -1	Contractual agreements are not received or processed in a timely or accurate fashion, or payments are miscalculated, leading to misstatements of revenue and over/under payments to customers.	nely o	r acc	urate fashion, or payn	ients are miscalculat	ed, leading to	
CA-1	Deductions and allowances are manually calculated monthly using supporting spreadsheets by the Business Support & Development Manager. and are reviewed and approved by the Sales & Marketing Director prior to payment.	ng supl ng Dir	oortin	g spreadsheets by the E prior to payment.	usiness Support & Do	evelopment	
	Control "As Is" Rating 2						
Task	Description of Control Activity Procedures	G K	T	Job Position	References	Frequency	A
18	Every single attributions of Volume Discounts negotiated by the Area Sales Managers with the wholesalers and/pharmacies (within the model guidelines define by local policy) have to be revised and approved by, at least, two these company Managers.	ı		Sales & Marketing Director Area Sales Managers Marketing Manager Head of Finance	Sales Proposals Written comunication (email) from ASM requiring the approval of each deal.	Per Deal	${\mathbb M}$
19	Instructions to to execute approved deal with an wholesaler.	1		Head of Finance	Written comunication (email or fax) with signed sales proposals	Per Deal	M
20	An invoice with the volume discount is issued and registered in the local accounting system.			Head of Finance	Primavera Software	Per Deal	M
21	The discount corresponding is reported to Alpharma ApS, Denmark, as part of the monthly report packing.	1		Head of Finance	Excel spreadsheet	Monthly	Μ
Colm	Column Legend: G = Gap ("S" = Sarbanes-Oxley Section 404, "O" = Operational), K = Key Control ("K" = yes, "" = no), T = Testing Template Type, AM = Automated or Manual control	("K" = y	ي. ا	= no), T = Testing Template Ty	pe, AM = Automated or Man	nal control	

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0-3	Reserves and expense accruals for deductions and allowances are adequate and properly recorded in the financial statements.	s are a	nbəpı	iate and properly	y recorded	in the financial s	statements.	
RF -1	Reserves for deductions and allowances are miscalculated based on inaccurate, incomplete, or untimely information, and are improperly reflected in the financial statements.	sed on	n inac	curate, incomple	ete, or unt	imely informatio	n, and are	
CA-1	Reserves and accruals for deductions and allowances are manually calculated monthly (based on approved methodologies) by the Business Support & Development Manager.and are reviewed and approved by the Sales & Marketing Director prior to recording in the general ledger.	ly calc d by th	culate he Saj	d monthly (based les & Marketing I	on approv Director pr	ed methodologies) ior to recording in	by the Busines the general	SS
	Control "As Is" Rating 2							
Task	Description of Control Activity Procedures	ა	- X	Job Position	u u	References	Frequency	A M
-	The methodology and procedures for determining the monthly reserves and accruals, including a description of the detailed procedures for making the calculations for each component of the reserves, are maintained and updated as appropriate.	- v		Head of Finance		Deductions & Allowances Expense Reserves and Accruals Procedures	As Required	×
7	Volume Rebates: On a monthly basis reports the units sold directly to pharmacies, by email.			Head of Finance	ance	email	Monthly	M
ю	The report is checked for compliance with the written contract and any discrepancies are resolved with			Head of Finance Marketing Manager		report Letter of Intent	Monthly	M
4	On a monthly basis the accrual to this rebate is calculated and registered in the local accounting system.			Head of Finance	ance	Excel spreadsheet Primavera Software	Monthly	M
vo	The accrual is reported to Alpharma ApS, Denmark, as part of the monthly report packing.	ı		Head of Finance	ance	Excel spreadsheet	Monthly	M

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0-3	Reserves and expense accruals for deductions and allowances are adequate and properly recorded in the financial statements.	s are	adeg	uate	and properly record	ed in the financial	statements.	
RF -1	Reserves for deductions and allowances are miscalculated based on inaccurate, incomplete, or untimely information, and are improperly reflected in the financial statements.	sed o	n ina	ccm	rate, incomplete, or u	ntimely informatio	n, and are	
CA-1	Reserves and accruals for deductions and allowances are manually calculated monthly (based on approved methodologies) by the Business Support & Development Manager. and are reviewed and approved by the Sales & Marketing Director prior to recording in the general ledger.	ly cal d by	culate the Sa	ed m	onthly (based on appr & Marketing Director 1	oved methodologies prior to recording in	) by the Busines the general	S
	Control "As Is" Rating 2							
Task	Description of Control Activity Procedures	Ů	KT		Job Position	References	Frequency	A
9	Market Share Rebate: Alpharma has a signed contract (Letter of Intent) with wholesaler in order to pay a rebate equal to a pre-established percentage, rewarding the increase of share in Alpharma generic products sold (ex-wholesalers) into the market.	ı			Sales & Marketing Director	Letter of Intent	As required	M
7	Each quarter, based on IMS market share data an accrual developed and registered in the local accounting system	ı			Head of Finance Marketing Manager	Excel spreadsheet Primavera Software	Quarterly	M
8	The accrual is report to Alpharma ApS, Denmark, as part of the monthly report packing.	-			Head of Finance	Excel spreadsheet	Monthly	M
6	Cash Discounts: Alpharma offers 3% cash discounts for payment of invoices within credit time.	-			Sales & Marketing Director	contract	As Required	M
10	The cash discount is accrued monthly base on total sales to wholesalers.				Head of Finance	Excel spreadsheet	Monthly	M

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5.7 Manage Sales Retns, Dedns & Allow FP PTv1

0-3	Reserves and expense accruals for deductions and allowances are adequate and properly recorded in the financial statements.	are a	degu	ate and prope	rly recorde	d in the financial	statements.	
RF -1	Reserves for deductions and allowances are miscalculated based on inaccurate, incomplete, or untimely information, and are improperly reflected in the financial statements.	ed on	inac	curate, incom	plete, or un	ıtimely informatio	n, and are	
CA-1	Reserves and accruals for deductions and allowances are manually calculated monthly (based on approved methodologies) by the Business Support & Development Manager.and are reviewed and approved by the Sales & Marketing Director prior to recording in the general ledger.	y calcu by th	ılate e Sal	d monthly (bas les & Marketing	ed on appro g Director p	wed methodologies) rrior to recording in	) by the Busines the general	S
	Control "As Is" Rating 2							
Task	Description of Control Activity Procedures	G K	T :	Job Position	ition	References	Frequency	A
111	On a monthly basis the accrual to this rebate is calculated and registered in the local accounting system.	ı		Head of Finance	inance	Excel spreadsheet Primavera Software	Monthly	M
12	The accrual is reported to Alpharma ApS, Denmark, as part of the monthly report packing.			Head of Finance	inance	Excel spreadsheet	Monthly	M

Column Legend: G = Gap ("S" = Sarbanes-Oxley Section 404, "O" = Operational), K = Key Control ("K" = yes, "-" = no), T = Testing Template Type, AM = Automated or Manual control

0-4	Customer returns are properly accrued, authorized, and receivables records and the financial statements.	Customer returns are properly accrued, authorized, calculated, applied according to policy, and recorded accurately in the sales and receivables records and the financial statements.	ed, ap	plie	d ac	ccording to policy, and	recorded accurate	ely in the sales	
RF -1	Unauthorized returns are ina	Unauthorized returns are inadvertently returned to inventory or incorrectly applied to customer accounts.	y or i	псог	reci	tly applied to custome	r accounts.		
CA-1	The returns process is controlled the credit memos by Finance.	The returns process is controlled through advance authorization, extensive quality control procedures upon receipt, and the review and approval of all credit memos by Finance.	ive qu	ality	cont	irol procedures upon recei	pt, and the review and	l approval of all	
	Control "As Is" Rating 2								
Task	Description of Control Activity Procedures	edures	G	K	T	Job Position	References	Frequency	A M
1	Returns Authorization policies, procedures, and work instructions are maintained and updated as appropriate.	cedures, and work instructions opriate.	,			Sales & Marketing Director	Returns Policy, SOP, and Work Instructions	As Required	M
2	The Company accepts returns of expired, expiring, discontinued, and damaged finished products within its return goods policy.  Local Sales & Marketing organization delegates in tesponsibility for approving returns of damaged/expired/discontinued product and for processing credits associated with those returns, whenever Alpharma internal policy applies. Returns may also be generated from order fulfillment and/or shipping errors.	pired, expiring, discontinued, in its return goods policy. on delegates in of the for the form of the form of the form order fulfillment atted from order fulfillment	S 2			Regulatory Manager	Expired/ Deactivated/ Damaged Products Report	As Required	M
4	The credits associated with the returns report are appropriately approved (by Alpharma Regulatory Manager) for credit application of products entering stock.	rns report are appropriately Manager) for credit ck.	1			Regulatory Manager	Expired/ Deactivated/ Damaged Products Report	As Required	M

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0-4	Customer returns are properly accrued, authorized, calculated, applied according to policy, and recorded accurately in the sales and receivables records and the financial statements.	, appl	ied a	ccording to policy, and	l recorded accurate	ly in the sales	
RF -1	Unauthorized returns are inadvertently returned to inventory or incorrectly applied to customer accounts.	or inc	orrec	tly applied to custome	r accounts.		
CA-1	The returns process is controlled through advance authorization, extensive quality control procedures upon receipt, and the review and approval of all credit memos by Finance.	e qualit	y con	trol procedures upon rece	ipt, and the review and	approval of all	
	Control "As Is" Rating 2						
Task	Task Description of Control Activity Procedures	G K	T	Job Position	References	Frequency	A
w	Returns are registered as they occur and potential returns are accrued for each month in the local accounting system. Accruals are established based on product quantities of damaged, expired/expiring, and deactivated stock and related prices provided by the wholesaler, subject to price accuracy and inventory reasonableness checks.			Head of Finance	Excel Spreadsheet Primavera Software	As Required	Μ
9	The accrual is reported to Alpharma ApS, Denmark, as part of the monthly report packing.			Head of Finance	Excel spreadsheet	Monthly	M
7	Actual returned goods payments are monitored on a periodic basis and the approach/percentages used to calculate the accrual are adjusted as appropriate.			Head of Finance	Expired/ Deactivated/ Damaged Products Accruals	As Required	M

Column Legend: G = Gap ("S" = Sarbanes-Oxley Section 404, "O" = Operational), K = Key Control ("K" = yes, "-." = no), T = Testing Template Type, AM = Automated or Manual control

#### 1.9 Business Applications

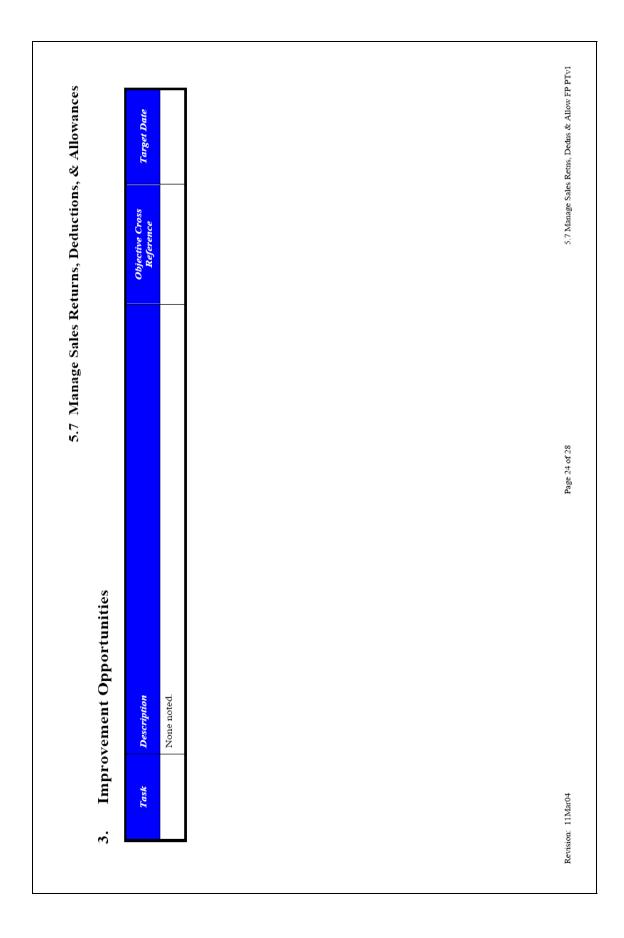
Application	Location/Owner	Purpose
BPCS	Lisbon /Information Technology	Enterprise Requirements Planning system used for inventory management, production control, sales order processing, and operations.
Primavera	Lisbon / ERP System	Accounting system used for AP, AR, FA, and GL.
Microsoft Excel	Lisbon/Information Technology	Used for development and analysis of accruals and reserves, and ad hoc analyses and reporting.
IMS Dataview	Lisbon/Sales and Marketing	Wholesaler and retailer sales volumes and prices.

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#### 2. Section 404 Remediation

Task	Description	Objective Cross Reference	Target Date
1	Develop a standard procedure that is able to gather the existing separated working instructions that presently exists in Alpharma ApS, Portugal.	0-1; RF-1; CA-1 - 1 0-2; RF-1; CA-1 - 1 0-3; RF-1; CA-1 - 1	Ongoing process
7	The verifications of all return products acceptance is verified based on Alpharma policies. Regularly checking	O-4; RF-1; CA-1 - 9	Ongoing process

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#### 4. Appendix

This appendix provides additional detail as to the reserves calculation methodology for the returns, deductions, and allowances (Methodology Summary) described in Section 1.1, and identifies in which countries the various deductions/allowances are employed (Country Analysis).

#### Methodology Summary

Return,		% and \$			
Deduction, or		Gross Sales	Eligible	Affected	
Allowance	Definition	2003	Customers	Products	Methodology
<u>Volume</u> <u>Rebates</u>	Alpharma has a signed contract (Letter of Intent) with to promote and sell Decubal.	<del>3</del> 0 %0	Alliance Unichem	Decubal	For the achievement of an established sales target of Decubal Alpharma will pay a volume rebate to The payment of this rebate occurs once a year and the cost accural is made each quarter. The cost accurate is made and many and the control of the Decubal
					sales report. These sales report is send to Alpharma by the sales team manager.
<u>Market Share</u> <u>Rebates</u>	Alpharma has a signed contract (Letter of Intent) with wholesaler in order to pay a rebate equal to a pre-established	4,830€		Generic products	The payment of this rebate occurs once a year and the cost accrual is made each quarter. Although this agreement exists presently only with
	percentage, rewarding the increase of share in Alpharma generic products sold into the market.				establish this agreement with all major wholesalers in Portugal – forcing these wholesalers to compete among themselves in order to achieve a correspondent market share rebate in order for
					Alpharma Portugal to increase total national market share. The accrual for the
					IMS market share data.
Distribution Fees	Alpharma pays a handling, storage and distribution fee to	454.523€ 5% to 6% over		All	This fee is registered and accounted for each month. The calculation and verifications of this fee is based on
	Alpharma products to wholesalers and hospital customers. This fee is registered	Gross Sales			daily sales report.
Ë	and accounted for each month	000	:		
One-Time Promotional	Alpharma may offer special, one-time discounts for a special wholesaler campaign	952€	All Wholesalers	All	Accruals are established based on the expected sales volume of the promoted products applied and the price differential between the
Discounts	or product promotion. These discounts are				contract price and the promotional price.
	registered (or accrued) and accounted for each time they occur				

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Return,		s pup %			
Deduction, or Allowance	Definition	Gross Sales 2003	Eligible Customers	Affected Products	Methodology
Attorumee	Free goods are offered to wholesalers, in order to pass them to pharmacies, as a purchase incentive.	791.271€	Customers All Wholesalers	Fronticis Generic products (with the exception narcotic products ) Decubal, Permadoze and	Free goods are a common practice in the portuguese market and work as a purchase incentive.  Example: if a wholesaler buys 1000 product units Alpharma will give away 100 free products units. An invoice for the 1100 units is issued along with a credit note for 100 units  Because free goods are registered in the same period of what it occurs no accrual needs to be done.
Cash Discounts	Alpharma offers 3% cash discounts for payment of invoices within credit time	TBD	All Wholesalers	All	Based on total monthly sales to wholesalers this discount is accrued for each month. This cash discount is a common practice in the Portuguese market.
<u>Volume</u> <u>Discounts</u>	Alpharma offers a discount for wholesalers purchasing orders of high volumes.	From 1% to 5%	N/A	Generic products, Decubal, Permadoze and Dumovital	This volume discount is directly expressed in the correspond invoice - no accrual needs to be done. The %age of discount is regularly define in order to adapt do market condition
Returns	Returns of expired products, returns for discontinued and damaged stock, and returns due to order fulfillment errors are processed according to local policy.	182.295€ (more or less 2% of total gross sales)	All	All	Returns are registered as they occur and potential returns are accrued for each month. Accruals are established based on product quantities of damaged, expired/expiring, and deactivated stock and related prices provided by the wholesaler, subject to price accuracy and inventory reasonableness checks.
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5.7 Manage Sales Returns, Deductions, & Allowances

Country Analysis

						Country/Region	Region				
Deduction/ Allowance	Definition	Denmark	Norway	Sweden	Finland	United Kingdom	Holland	Germany	Portugal	Europe Export	Middle East Export
Chargebacks	Wholesalers bill Alpharma the difference between the price they paid for the product and their selling price to retail pharmacy chains, hospitals, pharmacies, etc.	Y	Y	N	Y				N		
Rebates	Alpharma pays rebates equal to a negotiated percentage of sales to retail pharmacy chains, pharmacy buying groups, hospitals, pharmacies, etc.	Y	Y	Y	z				Z		
Volume Rebates	Alpharma pays a volume rebate to one pharmacy chain equal to a pre-defined percentage (per signed contract) of sales when established sales targets are achieved.	Z	N	Z	Y				Ā		
Market Share Rebate	Alpharma pays a Market share rebate to wholesalers equal to a pre-defined percentage (per signed contract) of sales when established sales targets are achieved.								Ā		
Preferred Vendor Rebates	Alpharma pays a preferred vendor rebate to a limited number of hospital pharmacies who exhibit that for specific Alpharma products, they purchase more of the Alpharma product than from any of its competitors	N	z	Y	z				Z		
Price Reduction Protection	Ρ	¥	Y	Z	¥				Z		

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				5.7	Manag	ge Sales	Return	ıs, Dedı	5.7 Manage Sales Returns, Deductions, & Allowances	& Allo	wances
						Country/Region	/Region				
	Definition	Denmark	Norway	Sweden	Finland	United Kingdom	Holland	Germany	Portugal	Europe Export	Middle East Export
5 1 3 7 3	Customers (typically hospitals?) invoice Alpharma for the difference between the agreed price and the price paid for a competitive product when Alpharma is unable to meet product availability obligations.	¥	¥	Y	<b>&gt;</b>				z		
4	Alpharma pays a handling fee to the wholesalers who sell Alpharma products to those Alpharma customers who have established a contractual relationship with Alpharma, as well as to a consignment stock holder (if appropriate).	Þ-	<b>&gt;</b>	<b>&gt;</b>	×				<b>≻</b>		
4	Alpharma may offer special, one-time discounts for a special retail chain campaign or product promotion.	Y	Y	Z	Z				Y		
Щ.	Free goods offered wholesalers, physicians, pharmacists, and/or consumers to promote new products and/or as a purchase incentive.	Y (Mktg expense)	Y (Mktg expense)	Z	Z				Y		
4	Alpharma offers cash discounts for early payment of invoices.	6	?	Z	Z				Y		
7	Alpharma offers a discount for purchasing orders of a high volume.								Y		
-	Returns of expired products per local country policy, returns for discontinued and damaged stock, and returns due to order fulfilment errors.	Y	Y	Y	Y				Y		