

## The Balanced Scorecard in the Healthcare Industry: A Case Study

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**Abstract:** The performance measurement and management is an important process for decision-makers in any type of organization. One of the performance measurement tools available is the balanced scorecard, which provides a comprehensive set of financial and non-financial performance measures for the organizations to be strategy focused. This study discusses the balanced scorecard generally from theoretical views, and why it should be used by healthcare organizations. Moreover, the study is enhanced by performing a case study to examine the implementation process of the balanced scorecard by healthcare (orthopedics) company in the United States. This study suggests that though the balanced scorecard would be the right choice for many, including companies in the healthcare industry, it may not be the right choice for all. With the balanced scorecard being fairly young, it is the common perception that this approach will continue to be explored and efficiency will be improved on it in the future.

**Keywords:** Balanced scorecard, performance measurement, healthcare industry

### 1. Introduction

Without measuring results, there is no way of knowing whether the business is being managed satisfactorily, nor is it possible to hold managers accountable for the business. Moreover, it is difficult to reward success or avoid unintentionally rewarding failure. To date, there have been numerous tools developed for the purpose of performance measurement. The balanced scorecard (BSC) puts the organization's vision and strategy into a framework that effectively and efficiently communicates strategic intent and monitors performance.

Traditionally, management control stresses decentralized profit goals, which mean that it is mostly focused on outcomes. In a BSC, outcome measures are combined with measures that describe resources spent or activities performed. Good scorecards combine outcome measures, of which profit is only one, with performance drivers.

The BSC assists companies in overcoming two important issues: effective organizational performance measurement and implementing strategy (Niven, 2002). The first issue is an effective performance measurement: "*If you cannot measure it, you cannot manage it*". Historically, the measurement system for business has been financial. A key problem with looking at financial measures alone is that it gives only one particular perspective (Coskun, 2006). In fact, it may even lead to poor decision-making. For example, if one of the main performance measures is cost per customer, managers may try to cut costs to such an extent that the customers become unhappy with the products they are buying and will take their business to a competing supplier. Moreover, financial measures are not consistent with today's business environment, and are not relevant to many levels of organization.

Successfully implementing strategy is another important issue facing organizations. A strategy is a set of hypotheses about cause and effect. The measurement system makes the relationships (hypotheses) among objectives in the various perspectives explicit so that they can be managed and validated (Niven, 2002). The BSC is not merely a collection of financial and non-financial measurements. The BSC should be the translation of the business unit's strategy into a linked set of measures that define both the long-term strategic purposes, as well as the mechanisms for achieving those purposes (Kaplan, 2000). In the nature of implementing strategies, the organization may have some barriers. There are four barriers to strategy implementation that exist for most companies: a vision barrier, a people barrier, a resource barrier, and a management barrier (Niven, 2002).

The purpose of this study is the increase understanding of how the BSC is used in the healthcare industry, specifically in the orthopedics company operating in the United States. This paper is organized in the following manner. Section 2 reviews the literature on performance measurement and management highlighting the need for the healthcare industry to use both financial and non-financial performance indicators. In section 3, a short background of the case company is presented followed by a case description. The implementation of the

BSC is described with respect to how it designed and implemented. Finally, in section 4 the findings from the study are synthesized and the implementation process of the BSC discussed.

## 2. Literature Review

The BSC is a management tool that was developed by Dr. Robert Kaplan and Dr. David Norton in the 1990s (Kaplan & Norton, 1992). Drs. Kaplan and Norton recognized the need for businesses to have a more “balanced” approach of assessing company performance than the traditional method of looking strictly at financial data (Davis, 2005). While financial data is important, in large part it only gives an indication of historical company performance. The BSC combines financial data along with non-financial performance criteria, such as product quality and customer service, in a way that allows businesses to not only track their performance, but also to align business activities in such a way that they support the organization’s stated missions and goals (Davis, 2005).

The BSC provides superior financial performance when compared to a traditional performance measurement system (Albright & Davis, 2004). In contrast to the financial based measurement systems, the BSC reinforces the organization’s focus on future success by setting objectives and measuring performance from different perspectives. These balanced perspectives are as follows: customer, internal business processes, learning and growth, and financial (Kaplan & Norton, 1992). The BSC retains financial measurement, but it focuses on a more general and integrated set of measurements that link customer, internal business processes, employee learning and growth, and financial performance to long-term financial success. These four perspectives are defined as (Hoque & James, 2000):

*The financial perspective includes profitability measures such as operating income, return-on-capital employed, sales growth, and generation of cash flow or economic value added.*

*The customer perspective encompasses such measures as customer satisfaction, customer retention, new customer acquisition, customer response time, market share, and customer profitability.*

*The internal process perspective includes product design, product development, post-sales service, manufacturing efficiency, quality etc.*

*The learning and growth perspective measures the ability of employees, information system and organizational procedures to manage the business and adapt to change.*

The reasons for adopting the BSC in the healthcare industry are due to financial pressure, competition, consumerism, industry consolidation, regulatory reporting, information management, and new technology (Inamdar & Kaplan, 2002). Considering the healthcare industry, one can argue that a number of problems face the healthcare industry, including cost structure, payor limitations and constraints, and performance and quality issues that require changes in how healthcare organizations, both profit and nonprofit, manage operations (Kocakulah & Austill, 2007). As these healthcare systems become more complex, so does the task of developing a methodology and formula that can align the organizational strategies and main principles with performance measurement and management indicators. The BSC is especially appropriate for organizations in turbulent industries such as healthcare (Voelker et al., 2001).

A BSC is not only better in monitoring and evaluating performance of a healthcare organization but also in improving that performance to its maximum best. For instance, by tracking value delivery and paying incentives to staff based on how much value an organization delivers to customers, rather than the amount or value received from customers, hospitals can motivate and redirect staff to look for better ways to improve value of service. This can serve as counter to the possibility of staff motivation to promote short-term importance on the revenue received from clients. Also by effectively tracking improvement made by patients, clients and community, BSC can give internal stakeholders such as medical staff and employees a renewed pride in what they do (MacStravic, 1999).

The BSC is one of the tools for better control and management of organizations in the healthcare industry. However, the healthcare industry was a little slower to adopt the BSC approach than was manufacturing and profit-oriented service industries. Although Kaplan and Norton’s first book in 1996 outlining the BSC included examples, none were healthcare related (Kaplan & Norton, 1996). They simply had not found any services (Kocakulah & Austill, 2007). In the next section, we perform a case study in an orthopedics company in the healthcare industry.

## 3. The Implementation Process of the Balanced Scorecard in the Healthcare Industry

We have chosen to evaluate the unique aspects of a medical device manufacturer when considering the implementation of a BSC system. As we discussed before, one of the most critical aspects of creating a BSC system is making sure that it is tailored to the specific needs of the company and the industry in which it competes. There are several distinctive aspects of the medical device market that will ultimately determine the metrics used for our BSC implementation. The name of entity used herein is fictional to protect proprietary

interests and privacy. "Morgan" is the fictional name that represents the company. For this evaluation, we choose Morgan Inc., a large-cap manufacturer of orthopedic implants used for joint reconstruction. In applying the four main perspectives of the BSC to Morgan's business it is also important to look at the medical device market in general.

Morgan is one of the world's largest pure-play orthopedics' manufacturers with annual revenues in 2008 of \$1.8 billion. The orthopedic market is mainly made up of total joint replacements (hips, knees, shoulders, ankles, elbows, etc.) as well as trauma and spinal implants. This market is dominated by five key players that together account for over 90% of the joint reconstruction market. Having an oligopoly market like this creates stability, but also makes moving market share incredibly difficult. This market is set for increased growth over the next few decades, since the average age that a patient will receive a total hip or total knee replacement is 67, and the average baby boomer is currently 62 years old. Because Morgan manufactures implants for human use, quality is incredibly important.

This is also why the Food and Drug Administration (FDA) plays such a large role in the company's financial performance. The FDA must approve all new implants that Morgan makes. It is subject to continued oversight of the FDA in the form of product surveillance, inspection checks, and even implant recalls. All of this points to the need for a high level of quality in the products that Morgan makes.

In addition to a need for high quality, the medical device market in which Morgan does business is incredibly lucrative. Morgan's annual gross margin is consistently in the mid to upper 70 percent, and its main customers are orthopedic surgeons, hospitals, and ultimately patients. Also, a total hip or total knee replacement is an extremely technical operation. For this reason, Morgan has an array of sales associates around the world that not only deliver the necessary implants and instruments to the hospital but also provide critically important information about the product and surgical technique during a case. Therefore, the sales associate-surgeon relationship is important for maintenance and growth of sales.

In applying the BSC approach to Morgan, it is important to walk through the four different perspectives and discuss how they affect each other and also how each measure improves company. The first is learning and growth. Learning and growth is important because it is Morgan employees that drive innovation and creativity throughout the organization. Hiring, training, and retaining key employee talent is necessary for improving the next stage: business processes.

By improving the way that Morgan operates internally, it has increase focus and can better serve the 3<sup>rd</sup> perspective: customers. Customers that purchase products consistently and/or those that purchase premium technology products lead to increased revenues and improvement in the 4<sup>th</sup> perspective: Financial performance. The tracking of key financial metrics helps Morgan measure those areas that tie directly with corporate strategies.

In exploring the first perspective, learning and growth, it is important to remember that key employee talent is critical to the success of the organization. Some of the unique attributes of this perspective within Morgan are a highly technical and creative workforce, employee interest in continued education, and high attraction to the medical field. In order to be a highly motivated and capable organization, Morgan would implement the following employee goals: 1) provide continued opportunities for employee learning and training, 2) increase employee empowerment to make key decisions, 3) encourage innovation and creative thinking and 4) have a highly satisfied and motivated workforce. Some of the metrics that would be measured in order to judge performance would be the percentage of internal promotions, continued education tuition reimbursement, retention rates, employee satisfaction surveys, and benchmarking evaluations.

In exploring the next perspective, internal business practices, it is important to remember that Morgan produces high quality, high technology products. Also important is the fact that new propriety, premium-priced implants are the main drivers of growth. Therefore some of the goals that Morgan would implement would be to 1) minimize the potential for product recalls, 2) increase sales force focus on premium products, 3) become the technology leader in new product development, and 4) minimize time from idea creation to launch. In order to achieve these goals Morgan would measure 1) the percentage of "first run" products that are manufactured without defect and incidence reports as measured by the FDA, 2) the percentage of new product sales from total sales as determined by those systems launched in the past 18 months, 3) new, propriety technology product launches and 4) product launch timelines.

In thinking about the next perspective, customers, it is important to remember that the Morgan's main customers are orthopedic surgeons. They are a highly educated and technical professional group. Second, market share is extremely sticky, causing the relationship between sales associate and surgeon to be critical in the selling process. Therefore the goals for the customer perspective are to 1) increase customer loyalty and satisfaction, 2) better target the most profitable customers, and 3) increase new customer usage. Some of the measures that Morgan would look at are 1) share of profitable customer's business, 2) measurement of average profit per account and 3) percentage of the business that is coming from new customers.

The final BSC perspective that Morgan would measure would be financial performance. Important criteria to Morgan in this category are the need for profitable R&D and product development cycles, ready

access to cash, and efficient return on investment throughout its various divisions. The measures that would be considered for financial performance are IRR and NPV minimums, consistent growth in free cash flow, and ROI and ROA assessments.

As we step back to assess the value of a BSC system for Morgan, it is important to remember that the measures will only work if employees believe in their value. The biggest motivation for employee input and support of a BSC system is to directly tie the performance evaluations to the BSC measures. It is also important to make sure that these targets are aligned with the broader corporate strategy. By determining strategy first, and then building your BSC measures on those tactics that directly support the plan for the organization, the BSC approach is much more effective.

Another important part of implementing the BSC at Morgan is to incorporate lessons that other organizations have learned when they developed their own BSC system. As more organizations implement BSC, there are more opportunities to avoid the potential land mines and hit the ground running with an effective measurement system. Some of these lessons are the need for flexibility, openness, efficiency, and inclusiveness.

The need for flexibility stems from the fact that it takes time to develop the tools and measures that will ultimately benefit Morgan the most. All of the correct measures will not be in place the first year, therefore Morgan should be willing to change or drop those measures that are not working or are not aligned with the broader corporate vision. The need for openness is also critically important because it keeps individuals at all levels engaged and focused on the right measures. By having an open communication channel from the CEO to the down, individual employees are empowered to make decisions that improve important measures. It is also important to be efficient in the measures that the company decides are critical to its success. Efficient focus on the key metrics for success is vitally important. Finally, including all departments in the planning and development of the BSC approach helps to achieve employee buy-in and support the measurement system. This is important not only at BSC creation, but also through continual feedback and refinement of the system moving forward.

#### 4. Conclusion

Many aspects were explored about the BSC and it can be claimed that there is much to be discovered about it. First to be explored were the main concepts and ideas about the BSC. This helped to get a general idea of what the BSC is all about. After understanding this, the reasons that industries need the BSC were discussed. The industry focused on was the healthcare industry and the many reasons why this approach could be used. More specifically we chose to go into more detail and chose a company in the healthcare industry that actually uses the BSC in their operations. The findings of the study imply that the implementation cost of the BSC is high. Therefore, it is important to make cost-benefit analysis rigorously. So it can be concluded on this note that though the BSC would be the right choice for many, including firms in the healthcare industry, it may not be the right choice for all. With the BSC being fairly young, it is the common perception that this approach will continue to be explored and efficiency will be improved on it in the future. It is very well likely that more and more companies, including the healthcare industry, will use the BSC in the future.

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