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## Volume 12 - Issue 4, 2012 - Balanced Scorecard

### Application of the Balanced Scorecard in Radiology



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The enormous cost pressures in the healthcare sector and the introduction of diagnosis related groups for the reimbursement of medical services has forced many radiological departments and practices to become more efficient by optimising their workflow in providing diagnostic and therapeutic services. As a central provider of services, a radiological department has to cater to the needs of different groups, including patients, referrers, its own staff, and the hospital sponsor. Patients and referrers expect short wait times for appointments, a high-quality diagnostic or interventional procedure, and rapid reporting of findings. The department's personnel expect attractive working conditions.

#### What is the Balanced Scorecard?

Presented by Kaplan and Norton in the early 1990s, the Balanced Scorecard (BSC) was initially developed for use by manufacturing companies. The BSC is a management tool aimed at linking a company's long-term strategies and its short-term operational activities. To this end, several concrete objectives are defined and assigned to one of four perspectives, namely customers, finances, processes, and learning and growth. Measures are then assigned to these objectives to gauge the degree to which a target is reached. The set targets are linked to concrete initiatives to be taken to attain the set targets.

In addition, BSC involves an analysis of cause-and-effect relationships between the strategic aims, going beyond a system of mere key figures. A strategy map with cause-effect chains is used to visualise relationships between strategic aims and the different perspectives.

The basic idea of a BSC is to group objectives by perspective (see Figure 1). There are four main perspectives:

- 1. Financial perspective:** Focuses on enhancing the cost structure and using assets to return greater productivity.
- 2. Customer perspective:** Aims to increase a company's market share by focusing on the customer's perspective and defining how customer loyalty and satisfaction can be enhanced.
- 3. Internal business processes perspective:** Aims to develop better product and service characteristics.
- 4. Learning and growth perspective:** Aims to identify what needs to be improved in ongoing processes and which new strategies need to be initiated in order to ensure long-term over competitors.

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#### Use of the Scorecard in Radiology

Balanced scorecards can also be used in hospitals and other healthcare facilities. As a comprehensive management tool, a BSC provides a useful systematic instrument for dealing with the increasingly complex delivery of radiological services and at the same time unifying different interests.

For the concrete application of a BSC in a radiological department, a number of objectives that are derived from the long-term strategy are assigned to each of the four perspectives. Each objective is assigned a measure, for which in turn targets are attached. The extent to which the objectives are actually being achieved can be monitored and followed over time. Table 1 gives examples of objectives that can be subsumed

under each of the four perspectives when using the BSC in a radiology department.

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#### **Advantages of the Balanced Scorecard**

The use of a BSC ensures that all the data necessary to achieve a set target are collected; it provides an overview on the current performance status of the department or practice just like the cockpit in a plane. For specific groups of staff, the measures and targets can be adjusted in terms of content and level of detail. For example, for an interventional radiologist it is relevant to know how much expensive implants embolisation material is used and how long it takes on average to perform a vascular intervention. Administrative staff are more interested in the use of office supplies or radiologist report turnaround time.

Any changes that possibly lead to undesired developments are identified early; hence the BSC also functions as an early-warning system. Information overload should be avoided by limiting the number of set targets (e.g. 20).

The cause-and-effect chains visualised in a BSC help each staff member understand how seemingly small improvements can help in achieving a set target. In this way, a BSC allows all staff members to internalise the overarching strategy and “makes strategy everyone’s job”.

An interventional radiologist, for example, can make an important contribution to lowering costs by carefully selecting disposables and using them sparingly. This is an example of how an individual staff member can help improve the financial perspective. Training of non-physician staff to firmly establish awareness of the service character of their work helps in enhancing the customer perspective if a patient feels well taken care of.

Already established control instruments and quality management systems can be integrated into a balanced scorecard by incorporating them under the customer, internal business processes, and learning and growth perspectives.

#### **Implementation**

Initially establishing a BSC is time consuming, as is their ongoing use in the routine clinical setting. It is important that all staff members support the use of this management tool and are involved when objectives are being defined.

Resistance may be encountered from different staff groups when first implementing a BSC. This is because different measures that are being taken to reach an objective challenge the status quo. If the objectives are too ambitious, staff may feel overtaxed. Staff motivation may be improved and maintained by implementing a system of incentives rewarding staff with a bonus for achieving stipulated targets.

#### **Risks**

The measures to be taken to attain specific objectives may be conflicting or lead to conflicts among different staff groups. If, for instance, the target of optimally utilising facilities and minimising examination times is not achieved, different staff groups may blame each other. Causes for not attaining this aim may also lie outside the radiology department, such as delay in in-house patient transport or patients arriving late for their appointments.

The benefit from using the BSC in a radiology department is crucially dependent on an adequate selection of objectives and key figures and the measures chosen to attain a set objective. There is a general risk that the objectives defined may be unsuitable for ensuring the long-term success of a radiological service or that the measures taken are unsuitable in attaining the objective. Another danger is that key figures tend to be defined based on data from an earlier period, meaning that the past is paramount while current trends or changes may be ignored.

#### **Conclusion**

Establishing a Balanced Scorecard requires staff time and financial resources. There are limits to its application. Despite these disadvantages, however, the BSC is also a beneficial management tool for a radiologic department or practice, enabling comprehensive strategic management of the diversity of radiologic services to be provided and taking a comprehensive approach toward a variety of needs.

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