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Balanced Scorecard: linking strategic planning to measurement and communication

Gulcin Cribb
Bond University, Cribb.gulcin@gmail.com

Chris Hogan
Bond University, Chris_Hogan@bond.edu.au

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Balanced Scorecard: linking strategic planning to measurement and communication
Gulcin Cribb and Chris Hogan
Bond University, Australia

Abstract
This paper discusses issues and strategies in implementing a Balanced Scorecard approach to facilitate strategic planning in a small private university library. Bond University has been using the Balanced Scorecard to measure and manage its performance. One of the challenges in implementing the Balanced Scorecard is selecting appropriate performance measures for the four areas of the Balanced Scorecard. Specifically this paper will discuss how use of the Balanced Scorecard in a university library can facilitate linking the strategic plan of the Library with that of the University, explore cause-effect relationships between performance measures and mapping of the Balanced Scorecard to the activities of the Library.

Introduction
The challenge of implementing performance management systems has assumed a higher profile in Australian university libraries in recent years. Libraries in common with many other organisations have been developing performance management systems that not only measure the “right” things, but also enable effective communication to external and internal stakeholders. Performance measurement activities have been carried out in all Australian university libraries for sometime. Wilson and Pitman surveyed Australian university libraries to find out how they used performance indicators for their Best Practice Handbook for Australian University Libraries (Wilson and Pitman 2000). Some of the objectives libraries said they used for performance measurement included: benchmarking with other University libraries, quality improvement, process improvement, to drive staffing and resource allocation decisions and review of work practices, modified library access policies, student support policies and procedures, to improve workflows and processes, to gain support for the Library eg additional funding for the collection, to identify perceived gaps and client priorities, to focus on problem areas and attempt new strategies to improve processes, and more.

Our objectives in this paper are to discuss a Balanced Scorecard (BSC) methodology for facilitating strategic planning for both university libraries and their parent organisations, and to examine the process of identifying performance measures linking the library’s BSC to the overall BSC for the university. We will examine the cause-effect relationship between performance measures and linkages between the overall objectives for the library and the goals of the university. The Balanced Scorecard experience at Bond University will be presented as a case study.

Context
Higher Education in Australia
Higher education is a significant sector in the Australian economy. The expenditure of Australia's universities totalled $A9.7 billion in 2000. Following a period of massive growth, there were 84,000 staff employed and 726,000 students enrolled in 2001. The Australian Government is by far the largest source of funding for Australia's higher education; however the level of government outlays is declining. Domestic students now contribute a growing proportion of the costs through fees and charges including the Higher Education Contribution Scheme (HECS). Universities are increasingly relying on fees from international students as well as other sources of income to supplement government funding.
Rapid growth accompanied by financial constraints has resulted in acute pressures on the traditional modes of teaching and research. As a preventive measure the Australian Government established the Australian Universities Quality Agency (AUQA) to maintain and build world-class quality into higher education in 2000. AUQA is an independent, not-for-profit national agency whose role is to promote, audit, and report on quality assurance in Australian higher education. Audits of institutions carried out by AUQA are conducted on a whole-of-institution basis. Self-assessment and a site visit are major components of the audit process. AUQA investigates the extent to which the institutions are achieving their missions and objectives.

**Bond University**

In contrast to Australia's predominantly public higher education system Bond University is a private university. A small private higher education sector exists but this provided only 3.4% of student load in the higher education sector in 1999. In addition, in terms of the life cycle of universities, which can span hundreds of years, Bond University is very young. It was established under its Act of Parliament in 1987. The University currently has around 2000 Equivalent Full-time Student Units (EFTSU) and includes five academic units: the Schools of Business, Humanities & Social Sciences, Information Technology, Law and Health Sciences plus the newly established Institute for Learning Communities. Instruction in small groups by highly qualified staff committed to high quality teaching is emphasised.

Bond University differentiates itself by its emphasis on small class sizes, personal attention and close contact between staff and students. The University also emphasises fast progress with a three-semester academic year which translates to two-year completion for most of its degrees. Bond is an international university with approximately half of the students and staff coming from overseas.

**Balanced Scorecard (BSC)**

**Concept**

The University's approach to the Balanced Scorecard is based on the concept developed by Kaplan and Norton in the early 1990s. The balanced scorecard concept was designed to overcome shortcomings of previous performance management systems in which measurement focused primarily on indicators of operational performance and quantitative financial measures. Such systems had the disadvantage that they tended to focus on the past and did not identify areas of strategic improvement. Kaplan and Norton developed the Balanced Scorecard approach, to address this concern (Kaplan and Norton 1992). Bond University's Balanced Scorecard aims to achieve three broad outcomes:

- To enable the measurement of all critical activities
- To provide a strategic management system to monitor the implementation of the strategic plan
- To facilitate communication with all stakeholders in particular with staff

Increased competition within the higher education sector has required universities to make better use of their assets (both tangible and intangible) to create and maintain competitive advantage. Within this environment the Balanced Scorecard has been adopted by Bond University as a conceptual framework for translating its mission and objectives into a set of performance indicators distributed among four perspectives:

- financial (how do we look to shareholders?),
- customer (how do our customers see us?),
- internal business processes (what must we excel at?), and
- innovation and learning (how can we continue to improve and create value?).
The framework of Bond's Balanced Scorecard is set out in Figure 1.

**Figure 1: Bond University’s Balanced Scorecard**

*A Balanced Pathway to Development*

The University has developed initiatives to support the achievement of targets in each of the perspectives. Progress against targets and progress with implementing initiatives is assessed on a regular basis. Each academic and support division (including the Library) is now in the process of developing and reporting progress within subsidiary Balanced Scorecards. These are linked to the corporate scorecard but have objectives, targets and measures as appropriate to their areas of responsibility.

Through the Balanced Scorecard, the University aims to monitor both its current performance and its efforts to provide teaching, learning and research activities, improve customer services, streamline key processes, provide an environment in which its employees are motivated and developed, and enhance information systems. A single management report prepared each Semester provides an assessment of many disparate elements of the University's strategy.

As part of this process, the Library is implementing a subsidiary Balanced Scorecard to formalise existing measures of its activities, communicate its strategic objectives to all its stakeholders and ensure alignment between the Library and the University’s strategic plan.

**Implementing Balanced Scorecard at the Library**

Each organization and unit adopts its own path in building a Balanced Scorecard. At Bond University, the Library chose to follow reasonably closely the process adopted for developing the corporate scorecard. This includes a systematic development plan, involving staff at all levels of the organisation. The process for the construction of the scorecard, adapted from the typical project outline provided by Kaplan and Norton (Kaplan and Norton 2000) includes several stages.
The Library had well-established strategic plans and was already collecting a plethora of statistics and other data using a range of measurement tools. These were mainly input measures which are helpful to answer the question “are we doing things right?” but not so helpful in answering the “are we doing the right things?” question. From the outset, it was decided that the Library wanted a holistic strategic management system using the Balanced Scorecard framework linked to the University’s Balanced Scorecard. In addition it was envisaged that the Library also wanted to encourage the development of subsidiary scorecards over time for the business units making up the Library.

The Process
In developing the Library’s Balanced Scorecard, each manager had access to key internal documents, which specify the University’s, and the Library’s vision, mission and strategies, and performance. These included the University’s Strategic Plan, reports of reviews of processes, financial reports and existing reports of statistical information. In addition, relevant papers from the literature on performance management and the balanced scorecard were made available to the planning group. A considerable range of data and previous surveys and information available from various library organisations were also utilised.

In constructing the preliminary scorecard, reference was made to the *Benchmarking Manual for Australian Universities* (McKinnon, Walker et al. 1999) and work being undertaken at other universities in Australia and overseas in developing balanced scorecards. McKinnon et al identify a basic set of potential performance indicators for library and information services and list examples of good practice. The manual also articulates the cause-effect relationships between performance measures for libraries and those of their parent organisations.

At Bond University Library, groups of senior and middle managers were asked to provide input on the strategic objectives and tentative proposals for measures through a variety of methods. In order to determine meaningful indicators it was essential to start at the strategic level and then ask a series of questions to determine key outcomes. One of the initial questions asked was; what processes must function effectively to achieve the things stakeholders regard as important and secondly; what information could be collected to help judge the degree to which they are operating effectively.

A key activity at this stage was to trace the relationships and linkages between key performance outcomes in each of the perspectives to the related performance drivers. These relationships needed to be described transparently in order to achieve a balanced strategic plan and scorecard. The cause-effect and linkage aspects of the Balanced Scorecard are critical to achieve the cascading of the Balanced Scorecard to all levels of staff and to all activities (Walsh 1996).

In our case, this involved linking the measures through a series of cause and effect relationships to describe the Library’s strategy. This process was critical not only to unite the linkages but also to describe the “how” of value creation using a common framework and language. Universities, like many other organisations are made up of seemingly disparate elements. The Library is just one element within the wider organisation. The cause-effect linkages assist the stakeholders, both internal and external to understand the strategy as a whole, rather than focusing on its component parts. The linkages also illustrate how individual staff or team contributions help take the organisation forward, by converting its assets into desired outcomes and connecting the desired outcomes with the drivers of those results (Kaplan and Norton 2000)

One challenge was to cull a large list of possible measures to select a few (our target was 16-20) that would adequately capture the essence of the desired strategy as recommended by Niven (Niven 2002). The measures needed to be quantifiable, easily understood, relevant and inclusive, in other words capturing those measures that came to light during the Balanced Scorecard development process. They also had to be linked to the overall Balanced Scorecard so
that maximisation rather than sub-optimisation of assets was achieved. The process of clarifying performance measures for all staff was a significant challenge, as some were not used to quantitative measures.

The next step was the formulation of a preliminary balanced scorecard. This was achieved by reviewing and consolidating input from the senior managers and taking the existing goals, objectives, measures and performance targets from the existing plans, various surveys, collections of quantitative measures and reviews of activities, and allocating them to the quadrants of the balanced scorecard.

At this stage the tentative scorecard had some blank spaces with respect to the key performance targets for each of the proposed measures and there were more measures suggested than the 16-20 desired. Each team naturally developed their own set of measures for each of the objectives pertinent to their operations. The Library’s Planning and Review Team (1) then went through a final process to endorse the tentative scorecard. They were asked to consider the following: Was the proposed list of measures complete and balanced and linked to the various change programs under way in the Library? Were there some non-strategic measures, which could be eliminated so as to reduce the total number of measures to 16-20? What are the targets for each of the key measures? Were the outcomes and measures linked in a way, which clearly described the library’s strategy?

The final scorecard, which resulted from the above process, is presented below including a description of each of the four perspectives along with the corresponding objectives, measures and targets. Aspects of the management system which are not shown include the detailed initiatives to be undertaken, the assignment of responsibilities and timelines.

The Four Perspectives

The Customer Perspective

As a private university, dependent on student fees for its income, a “customer service focus” is central to Bond’s philosophy. The University has identified customer satisfaction, provision of ‘value added’ educational services, superior employment outcomes for graduates and improved relationships with parents, employers, alumni and other stakeholders as its objectives for this perspective. The library's objectives are closely aligned to the University's objectives in this perspective. Highlighting its service role, the customer perspective is placed at the top of the Library’s Balanced Scorecard. The objectives focus on ensuring customer satisfaction with resources, services and facilities; effective communication and collaboration with the academic staff; and ensuring customer awareness of the quality, relevance and appropriateness of information resources provided.
## Customer Perspective

<table>
<thead>
<tr>
<th>Objectives</th>
<th>Measures</th>
<th>Targets</th>
</tr>
</thead>
<tbody>
<tr>
<td>To support teaching, learning and research needs of customers</td>
<td>Customer satisfaction as measured by the Customer Surveys; suggestion box comments, focus groups and other input from various customer groups</td>
<td>Improve</td>
</tr>
<tr>
<td>To enhance communication and collaboration with the academic staff and students</td>
<td>Comments and suggestions received</td>
<td>Maintain</td>
</tr>
<tr>
<td>To ensure customers’ awareness of the quality, relevance and appropriateness of information resources</td>
<td>Number of irritants or gaps between expectations reported Take-up rate of resources, facilities and services</td>
<td>Monitor and reduce Increase</td>
</tr>
<tr>
<td>To enhance the Library’s contribution to the University’s marketing, recruitment and Alumni activities</td>
<td>Library staff representation on University-wide groups; library staff understanding of university’s strategic directions and the University community’s awareness of the value the Library adds to their activities</td>
<td>Maintain or increase</td>
</tr>
</tbody>
</table>

## Internal Business Process Perspective

The University’s internal business perspective lists improved efficiency and asset utilisation, new academic initiatives, growing return on investment and continuous improvement of quality and service as its objectives. In aligning the Library’s scorecard to these objectives for the internal business perspective, the Library’s objectives are: to achieve continuous improvement of services, facilities and resources; to improve availability of course materials and to ensure cost-effective planning and implementation of information skills programs.

## Internal Business

<table>
<thead>
<tr>
<th>Objectives</th>
<th>Measures</th>
<th>Targets</th>
</tr>
</thead>
<tbody>
<tr>
<td>To achieve continuous improvement of services, facilities and resources</td>
<td>Meeting service standards/charter e.g. Shelving turnaround times Response time to customer requests for information Percentage of unfilled document delivery requests Percentage of all staff costs spent on acquisition and processing of library resources</td>
<td>Increase Reduce</td>
</tr>
<tr>
<td>To improve new product and service development</td>
<td>Number of new products, new publications and services introduced</td>
<td>Increase</td>
</tr>
<tr>
<td>To improve availability of course materials</td>
<td>Percentage of required and recommended readings available on the shelves as measured by Materials Availability survey</td>
<td>Increase</td>
</tr>
<tr>
<td>To ensure cost-effective planning and implementation of information skills programs</td>
<td>Number of formal training hours per library staff member Number of attendees per staff member</td>
<td>Reduce Increase</td>
</tr>
</tbody>
</table>
**Innovation and Learning Perspective**

This perspective focuses on the organisation’s ability to continue to improve and create value for its stakeholders. The University’s objectives for this perspective include: engaging quality academics and staff with international experience, increasing resources for all aspects of teaching and research and establishing and developing new technologies. For libraries, Poll refers to this perspective in terms of “the capability of the library to cope with the challenges of the future and its ability to change and improve” (Poll 2001). Alignment of the Bond University Library's objectives with the university’s objectives produced the following:

<table>
<thead>
<tr>
<th>Innovation and Learning</th>
<th>Objectives</th>
<th>Measures</th>
<th>Targets</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>To recruit, motivate and develop the highest quality library staff</td>
<td>Percentage of library budget spent on staff development</td>
<td>Increase</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Staff satisfaction index in staff perception survey</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Number of cross-trained or multi-skilled staff</td>
<td></td>
</tr>
<tr>
<td></td>
<td>To provide information skills training for academic staff and students</td>
<td>Quality of student assignments produced as reported by academic staff</td>
<td>Increase</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Number of research publications;</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Number of successful research grants</td>
<td></td>
</tr>
<tr>
<td></td>
<td>To provide library and information resources and facilities to enhance</td>
<td>Library budget as a percentage of the University's budget</td>
<td>Maintain or increase</td>
</tr>
<tr>
<td></td>
<td>staff and student achievement</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Financial Perspective**

The University’s objectives for the financial perspective are “profitable growth” and return on investment. In alignment with this objective, the main focus of the financial perspective for the Library is to ensure that resources are allocated cost-effectively in order to achieve low costs per transaction, per product, per service and so on. The University’s scorecard uses library resources to student numbers to measure the Library’s role in the Balanced Scorecard. Bond University’s expenditure on the library per EFTSU appears to be very high (CAUL Statistics 2001) compared to other universities in Australia, due to Bond’s low student numbers and small economies of scale. Thus, this measure alone cannot explain the relationships between library expenditure, usage, educational achievement of the target community and customer satisfaction (Kyrillidou 1998), so additional measures have been added to support both the University’s and the Library’s objectives:
## Financial Perspective

<table>
<thead>
<tr>
<th>Objectives</th>
<th>Measures</th>
<th>Targets</th>
</tr>
</thead>
<tbody>
<tr>
<td>To ensure library resources are allocated in a cost-effective way</td>
<td>Acquisitions expenditure as a percentage of staff costs</td>
<td>Increase</td>
</tr>
<tr>
<td>To improve value for money spent on library resources</td>
<td>Number of active borrowers, Percentage of new purchased items used within one year of acquisition, Performance of vendors and suppliers</td>
<td>Increase</td>
</tr>
<tr>
<td>To increase income from non-University sources</td>
<td>Income from sources other than the University</td>
<td>Increase</td>
</tr>
<tr>
<td>To maximize asset utilisation</td>
<td>More efficient and effective use of facilities, space, services, systems and resources as measured by various usage studies and statistics</td>
<td>Increase</td>
</tr>
</tbody>
</table>

### Adoption

Once agreement was reached regarding the objectives, measures and targets by members of the Library’s Planning and Review Team\(^{(1)}\), appropriate systems needed to be set up to collect and analyse the data for the assessment of progress. This has been achieved by linking the Balanced Scorecard to a list of projects/initiatives taking place within the Library.

Each project or initiative has an objective, owner, timelines, performance indicators, resource requirements and priority rating. Each semester a report on progress against the balanced scorecard measures is prepared for review and discussion by section heads. Information is updated on the library's Intranet on an ongoing basis to ensure owners of all projects communicate their progress to all staff. The balanced scorecard metrics are revisited annually as part of the Library's strategic planning, goal setting and resource allocation process. It is important to consider eliminating non-strategic initiatives and develop missing initiatives and then reprioritise the remaining initiatives during the review process.

A key success factor is the involvement of staff in the process of building the scorecard. The approach ensures that the Balanced Scorecard is understood and agreed to by all staff so that their day-to-day activities are aligned both with the Library’s and the University’s strategic objectives. Both the creation and implementation of the Balanced Scorecard need to be driven top down and bottom up to strike a balance. The implementation of the Balanced Scorecard is currently being communicated throughout the library and the broader university. Encouragement and facilitation of the development of second level measures for business units is being undertaken. It is important that scorecard measures are clearly visible to all staff and that they see that the management team actively discusses them.

### Conclusion

In this paper we have discussed the Balanced Scorecard as a methodology for strategic planning for university libraries and their parent organisations. In doing this, we adapted the theory proposed by Kaplan and Norton to the particular case of the Bond University library implementation. We have described the process of identifying performance measures in linking the library’s Balanced Scorecard to the overall Balanced Scorecard for the university. We have examined the cause-effect relationship between performance measures and linkages between the overall objectives for the library and the goals of the university. Finally, we provided information on critical success factors for a successful Balanced Scorecard implementation in a university library.
Not every library or university will want to use Balanced Scorecard as a methodology for strategic planning. However, the framework of the Balanced Scorecard has provided the Bond University Library with a way of articulating the what, why, how and how well, aspects of its strategic plan and how this plan complements and supports the University's Strategic Plan. The Balanced Scorecard succinctly describes how the different perspectives of the library's organisation, customers/stakeholders, staff and capacity, financial and internal processes are deployed to achieve the vision of the Library and ultimately the mission of the University. Finally, the Balanced Scorecard provides a balanced performance management system to track progress against the strategic plans and identify emerging issues.

Notes
(1) Planning Review Team includes staff from all sections and levels of the Library. It meets once a semester, three times a year to monitor progress of the Strategic Plan

References


