



Performance Measurement and Metrics

Implementing the Value Scorecard
Stephen Town

Article information:

To cite this document:

Stephen Town , (2015), "Implementing the Value Scorecard", Performance Measurement and Metrics, Vol. 16 Iss 3 pp. 234 - 251

Permanent link to this document:

<http://dx.doi.org/10.1108/PMM-10-2015-0033>

Downloaded on: 25 November 2015, At: 01:29 (PT)

References: this document contains references to 28 other documents.

To copy this document: permissions@emeraldinsight.com

The fulltext of this document has been downloaded 10 times since 2015*

Users who downloaded this article also downloaded:

Philip Calvert, Anne Goulding, (2015), "Narratives and stories that capture the library's worth: A qualitative approach to measuring value and impact in New Zealand's libraries", Performance Measurement and Metrics, Vol. 16 Iss 3 pp. 276-288 <http://dx.doi.org/10.1108/PMM-05-2015-0016>

Karin de Jager, (2015), "Place matters: undergraduate perceptions of the value of the library", Performance Measurement and Metrics, Vol. 16 Iss 3 pp. 289-302 <http://dx.doi.org/10.1108/PMM-08-2015-0021>

Danuta A Nitecki, John Wiggins, Nancy B Turner, (2015), "Assessment is not enough for libraries to be valued", Performance Measurement and Metrics, Vol. 16 Iss 3 pp. 197-210 <http://dx.doi.org/10.1108/PMM-10-2015-0032>

Access to this document was granted through an Emerald subscription provided by emerald-srm:239791 []

For Authors

If you would like to write for this, or any other Emerald publication, then please use our Emerald for Authors service information about how to choose which publication to write for and submission guidelines are available for all. Please visit www.emeraldinsight.com/authors for more information.

About Emerald www.emeraldinsight.com

Emerald is a global publisher linking research and practice to the benefit of society. The company manages a portfolio of more than 290 journals and over 2,350 books and book series volumes, as well as providing an extensive range of online products and additional customer resources and services.

Emerald is both COUNTER 4 and TRANSFER compliant. The organization is a partner of the Committee on Publication Ethics (COPE) and also works with Portico and the LOCKSS initiative for digital archive preservation.

*Related content and download information correct at time of download.

Implementing the Value Scorecard

Stephen Town
University of York, York, UK

Received 8 October 2015
Accepted 27 October 2015

Abstract

Purpose – The purpose of this paper is to present a case study of the implementation and use of the Value Scorecard in a university library. The Value Scorecard seeks to articulate the full value of a library through a four dimensional matrix populated with data, evidence and narrative.

Design/methodology/approach – The study covers two years of collection of data and evidence to populate the Value Scorecard at the University of York, UK. This is action research and development.

Findings – The paper describes the success of the implementation of the framework across a broad university service including library, archives and IT services. The reporting template is outlined and the availability of relevant measures for populating each dimension are discussed, together with developments in the concepts of each dimension since the original paper on the scorecard. The paper reflects on the advances in the understanding and practice of performance measurement and assessment in libraries that the Value Scorecard offers. The strengths and omissions of other pre-existing frameworks, including the Balanced Scorecard, are discussed and absorbed into the value framework. The application of the Value Scorecard offers a practical and successful framework for library performance measurement and advocacy in a dynamic and changing landscape.

Research limitations/implications – The limitations of the research are those generally applying to a single case experience.

Practical implications – Nothing arises from the study to suggest that other libraries could not apply this framework, as it encompasses other previous frameworks and allows for local variations and circumstances. Some elements of the framework lack full measurement methods, and this is discussed.

Originality/value – The originality and value of the paper is that it provides a unique framework for measurement of all dimensions of activity and value in an academic research library, and one that can be tailored to local requirements.

Keywords Performance measurement, Innovation, Academic libraries, Value, Library advocacy, Value Scorecard

Paper type Case study

Introduction

This paper describes the implementation of the Value Scorecard in a case study institution. The conceptual outline of the scorecard was described in a previous paper (Town and Kyrillidou, 2013). The approach here is to present further thinking on the scorecard to differentiate its unique contribution to library performance measurement and assessment, and to describe and assess the success of its application in a research university context. The need for further work and additional data sources to populate the scorecard fully is briefly discussed.

Whilst the University of York is a relatively recent foundation (in 1963), libraries for learning have existed in York since the medieval period, and the University Library & Archives includes collections across almost a millennium. A connection with the modern university is established through our stewardship of the York Minster Library. In 2014 the York Minster Library celebrated the 600th anniversary of its re-founding. The first known York library was created however in the eighth century, and it is writings about this library that provide a theme for this paper. Alcuin, one of the great



scholars of his age, lamented the lack of access to the great library at York whilst assisting the development of education for Charlemagne's empire. Alcuin describes how the great library was assembled:

[...] per bonam et deuotissimam magistri mei industriam uel etiam mei ipsius quaecumque sudorem.

which may be translated as:

[...] by the good and most devoted industry of my magister and also by some of my own perspiration.

Alcuin's master here was Aelberht, who became Archbishop of York in 767. Garrison (2014) perceptively suggests here that "industria" can be understood as "by his own good and most devoted plan," and "sudor" is sweat, the "perspiration of the copyist's heavy toil". This might be one of the first profound statements about library management; that libraries require both planning, and execution of that plan, and that the latter is hard work. This is an accurate reflection of the elements of this work on the library Value Scorecard; the framework or plan has been defined, but the implementation requires a deal of sweat, and that is what is described below.

It is also worth reflecting here that the idea, spirit and worth of the academic library has not fundamentally changed across 1200 years, and the management challenge of creating a great library remains the same, although with some different technologies. Creating a single item in Alcuin's time was a substantial project in itself, but the ultimate value of this individual piece of work to the higher-level transcendent contribution to learning and education was clear. In our day the aim of the Value Scorecard is to reflect the many contributions which when assembled make up the overall contribution of the contemporary library to the academy and beyond.

The paper is based on presentations given at the Fifth Library Assessment Conference, University of Washington, Seattle, WA, on Wednesday 6 August 2014 entitled "Making Value Measurement a Reality: Implementing the Value Scorecard", and at the LISC75, University of Cape Town, on Friday 28 November 2014 entitled "Measurement and assessment in the research library: Dynamic approaches to value". I am grateful to the organisers of each conference for the opportunity to share the developing ideas in this work, and to attendees at the conferences for their questions and comments which have helped shape this final version.

Research questions, concepts and limitations

The research questions for this paper are as follows:

- RQ1.* What does the idea of a Value Scorecard add to frameworks of library performance measurement?
- RQ2.* Can it be successfully implemented in a real academic research library context?
- RQ3.* Does the scorecard provide a necessary and sufficient framework for proof of the transcendent worth of the library?

This is action research and development; does the sweat reveal that the plan was sound? In the original paper cited above we used the term "Values Scorecard" but on further reflection "Value Scorecard" seems simpler. It also recognises more clearly that the aim of this series of work is to prove library value. Values remain however at the centre of both the diagram and the concept, as shown in Figure 1.

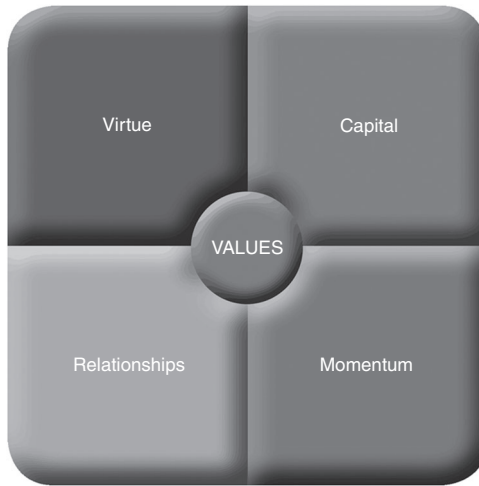


Figure 1.
The Value Scorecard

The limitations of this research are that it is a single case, with the risk that the approach might not be transferable. This is mitigated by the fact that there is now experience of implementing elements of the scorecard in at least one other university (Bracke, 2015), and that the UK University Library body SCOUNL has taken up elements of the framework in its current value and impact study, although this is not yet published.

There is a fundamental assumption here about the importance of performance measurement in achieving a competitive and innovative library. An academic library is as much a broad social construction as a discreet departmental unit, and the collection of evidence here encompasses multiple approaches and methods, and crosses structural boundaries. The paper does not stand or fall on the validity and reliability of any one piece of data collected, but on the summation of evidence as an accurate reflection of the library's performance and worth. This may not be fully objective; the approach has been pragmatic and utilitarian. The author is a participant observer working from a situated leadership perspective representing the formal structure of the institution, with the obvious potential biases that this entails.

Case context

The case library is that of the University of York, UK, although the Value Scorecard has been implemented across all areas of the Information Directorate at York, so also involving archives, IT services and information policy support.

The University of York is a successful research university with a strong teaching quality record and regularly ranked in the top 15 in UK University league tables. In the most recent UK research excellence framework York was placed 14th overall and tenth for impact. Internationally York is ranked 103rd in the world according to the QS rankings. York celebrated its 50th anniversary in 2013, and was one of only six universities under 50 in the world to have achieved a top 100 ranking (University of York, 2015a). The University seeks to maintain world-class levels of excellence in all its activities. University values remained consistent and strongly articulated across the period of this paper, and congruent with the values of the Information Directorate.

One of the established approaches in the University is to consider information support services to be closely related, with a single common governance link to higher university levels, and with structural convergence of relevant service units under a single director. A reorganisation in 2012 created a flat structure of ten service units in the Information Directorate (Town, 2015a), and these units provided the organisational framework for the implementation of the scorecard.

The broader HE context: the requirement for innovation

In a dynamic information landscape the capture of a compelling value proposition for libraries might be difficult. From an advocacy point of view it makes sense to turn the dynamism in the environment to our advantage. An approach to this might be to ensure that the successful innovations and responses to changing circumstances and technologies and the parallel development of staff and structures, are adequately collected, reflected and represented in our measurement frameworks, and consequently appropriately valued.

During the period of the evidence collection for this paper, the broader context for higher education internationally has not stood still. Environmental pressures for proof of worth of libraries and their contribution beyond traditional frames of reference have provided additional support for the dimensions of the Value Scorecard. Some of these pressures are described in the relevant section on each of the dimensions, but it worth singling out the requirement for innovation in libraries to extend their services into new areas and to continue to harness new technologies and approaches for the benefit of their institutions. The challenges of scholarly publication developments and supporting research more strongly are drivers of what Wilson (2009) termed a requirement for “accelerating the relevance” of research libraries.

Shore (2014) at the 2014 Research Libraries UK (RLUK) meeting suggested that research libraries have been struggling with their role since the end of what he terms “the end of research library coherence”, around 1980 after a century of relatively stable methods of scientific communication. Shore believes that control will only be regained by innovation to achieve a new coherence through:

- digital infrastructure;
- sustainable funding; and
- publication form control.

Shore also suggests that these cannot be achieved by individual libraries alone, and that coherence will only be regained “above campus scale” through partnership. It would therefore seem reasonable for infrastructure, innovation and partnership engagement to feature more strongly in library measurement frameworks in future.

In publicly funded higher education contexts, governments now demand proof of impact. At the same meeting, Atkins (2014), chief executive of the UK Higher Education Funding Council for England made the following statements:

- “There is no alternative but to play the impact game”.
- “[we are] [...] looking for more indicators of learning outcomes”.
- “there are some great individual stories, but we want to put more “quants” around them”.

At the 2015 SCOUNL Conference, Marshall (2015), CEO of the Higher Education Academy, encouraged academic libraries to produce a single unequivocal measure to

prove their impact on student learning, as part of the UK Government's desire to apply a teaching excellence framework to universities. There is a danger in single measures, particularly when wielded by government, but the pressure exists for proof of worth of contribution to teaching and learning as well as to research.

These arguments would appear to provide support for a scorecard that incorporates the following elements:

- measures of swift innovation;
- effective relationships to facilitate this innovation;
- the creation of new institutional capital assets in the area of research information and publication; and
- proof of impact of all of this activity.

Existing measurement methods, and statistical collections or frameworks currently used by libraries fall short of a full coherent response to this environment, although evidence within these might be marshalled more effectively.

In summary the current context demands what might be expressed as four I's:

- (1) Impact proof.
- (2) Innovation delivery.
- (3) Infrastructure sustainability.
- (4) Intimacy with markets and partners.

This suggests that we need a measurement framework that is focused on these four categories of proof of worth. These match the four dimensions of the Value Scorecard, expressed as:

- (1) virtue;
- (2) momentum;
- (3) capital; and
- (4) relationships.

The relationship of the Balanced Scorecard and the Value Scorecard

The previous section concluded that there needs to be a framework that answers the demands for proof of relevance and worth in the modern changing environment of the academy and its libraries. A question might be raised as to whether such a framework already exists. The Balanced Scorecard (Kaplan and Norton, 1996) has many library adherents across the world, and has been supported by the Association of Research Libraries (ARL) for research library application. It also has a record of success in helping develop the "culture of assessment" which has been seen in North America as the goal of successful performance related initiatives (see e.g. Self, 2003).

The Balanced Scorecard is a development of the quality revolution of the last decades of the previous century, and designed to extend the perspectives for which measures are required beyond the financial data that had held sway previously. Despite its operational and cultural utility, it may not however have provided sufficient ammunition for effective strategic advocacy for libraries in the new environment. There has been dissatisfaction from some stakeholders in relation to

proof of academic library worth, particularly the contribution to research (see e.g. RIN and RLUK, 2011). The Balanced Scorecard may be weak in providing evidential proof beyond the library envelope, despite its efficacy within it. The potential weakness of quality-theory based methods alone was pointed up long ago by Orr (1973) in defining the crucial distinction between the “good” and “goodness” of libraries; a successful framework must provide proof of value and impact as well as of quality and efficiency.

The strengths of the Balanced Scorecard approach have been in the idea of a balanced approach, in its simplicity in seeking a small number of single discrete measures or targets, its objective of collecting direct data, and its relationship to strategy. There may however be a point at which these strengths become weaknesses when what is sought is the transcendent value contribution of the library, in terms of a relationship to long-term institutional value and values, as opposed to shorter-term objectives. Being rooted in existing processes and seeking a narrow range of single measures is not likely to deliver the insight for prediction and transformational change. This requires a fuller, richer picture and probably the combination of larger data sets. For the requirements of a dynamic information environment and consumer context, an unbalanced scorecard might better suit the need for future agility.

The distinctiveness of the Value Scorecard (in comparison to the Balanced Scorecard) is that it is or can be:

- unbalanced to suit context and future agility, rather than “balanced” (which elevates balance to a metaphysical good in its own right);
- complex, rather than simple: simplicity may be a virtue when seeking clarity for staff, but is not reflective of the range of activities or perspectives in the complex real world that academic libraries inhabit;
- insight and prediction are the ultimate objectives of the Value Scorecard, so measures are sought not for their standalone virtue, but for their ability to be combined or connected with other measures to generate correlations of activity with outcomes;
- narrative and advocacy are built from the measures to tell the full story of the library, thus the Value Scorecard seeks to provide a richness through a broad range of qualitative data rather than through a few quantitative measures; and
- the ultimate test of the Value Scorecard is the contribution to the achievement of value as defined by institutional values, rather than the achievement of strategy alone; hence whilst the centre of the Balanced Scorecard is vision and strategy, the centre of the Value Scorecard is values.

In practice in the York case, there was an immediate question from staff as to whether the Value Scorecard replaced the existing Balanced Scorecard approach. The answer was that the existing measures and frame of the Balanced Scorecard would be fully incorporated into our new approach. The hybrid approach was reflected in our collection tool as described in the next section, and so none of the value of previous Balanced Scorecard work was wasted or discarded. The Balanced Scorecard can in conceptual terms be neatly folded in to the dimensions of the Value Scorecard; there are relationships between each dimension in the two approaches, and the amalgamation of these helped create the template collection tool described in the next section.

Methodology: forming the template and implementing collection

As Zairi (1994) suggests, process owners should define the improvements they are seeking and therefore have a strong hand in deciding on relevant measures. Much of the implementation of the Value Scorecard at York was therefore bottom-up, with service unit leaders and their staff having a key role in defining the initial data collected. Senior managers then suggested additional measures to fully populate the templates and support advocacy, and data elements were also provided by the institution or external bodies where required. The implementation was therefore an iterative process based on dialogue, and supported by the directorate programme office from which specialist data and analytic capability was available.

The instrument itself is a simple online form; the University of Wollongong generously shared their data collection tool, and this was modified to encompass both the dimensions of the Value Scorecard and pre-existing Balanced Scorecard measures (Figure 2).

The six elements required for completion are as follows:

- (1) service data (including satisfaction and impact);
- (2) innovation (to cover momentum, drawn largely from individual projects);
- (3) process (to cover process data and process improvement);
- (4) assets and resources (finance and capital assets);
- (5) relational (mainly narrative on relationships); and
- (6) people (to cover human capital and learning and growth).

Summary narrative reports were also sought on:

- (1) strategy progress (relevance and contribution to vision and strategy programmes);
- (2) objectives progress (relating to directorate annual objectives for the relevant year); and
- (3) values progress (culture and values fit and progress towards people strategy outcomes).

The initial response from service unit leaders was to seek more guidance on the precise data required to populate the form, and training sessions were duly provided. Performance reports were sought quarterly and these are reviewed in senior management team meetings, programmed to allow reasonable time to collect the data and provide narrative. Two years of reports have now been received, and the process has settled into business as usual without any practical difficulties. The cultural, awareness and curiosity impact on teams has been substantial. The framework has suggested areas in which some units have not traditionally collected data, and this has spurred the desire to find evidence to fill the gaps. The general sense of measurement as an important element in management has been reinforced, and this has resulted in many additional evidence-based investigations initiated within units and teams. The variety and richness of the data provided has been surprising; a great deal of measurement was in place that had not hitherto been surfaced and communicated to senior levels. Much of this has proven very valuable in advocacy to higher levels in the university.

The instrument is not a one-way communication tool. Some measures are created and collected at either university or directorate level and then fed back into the

Information Directorate SMT Performance Report - Team Name

(Make a copy by going to File > Make a Copy, then share as required. Insert extra rows in each section below if necessary.)

Report Categories	Balanced or Value Scorecard Dimension	Measures To be populated with data tables and agreed measures	Benchmark/Comparator To be populated with available comparison data, either historic or competitor	Narrative	Future Notes
1 SERVICE	Satisfaction Impact			<ul style="list-style-type: none"> - report on service satisfaction including complaints - report impact data, eg effect on Teaching and Learning, Research, Business and Community, Administration or related to University plan - report transient contributions or outcomes 	
2 INNOVATION	Momentum (Projects)			<ul style="list-style-type: none"> - report on innovation progress - report on project range, completion, and pace - report on issues, inhibitors and obstacles 	
3 PROCESS	Process and process improvement			<ul style="list-style-type: none"> - report on BAU processes and variations - report on process improvements - report on efficiency gains/deliveries 	
4 ASSETS AND RESOURCES	Finance Capital Assets			<ul style="list-style-type: none"> - report financial exceptions and variations - report savings achieved - report growth / change in asset base, for example infrastructure; content; other; intangibles - flag up trends relevant to planning 	
5 RELATIONAL	Relationships			<ul style="list-style-type: none"> - report on relationships / engagement / meetings/dialogue - report on internal and external partnerships - report on supplier partnerships - flag up consequences of new relationship requirements 	
6 PEOPLE	Human capital Learning and Growth			<ul style="list-style-type: none"> - report on new staff - report on staff learning issues and changes - report development activities, individual and collective 	

Summary Narrative Reports	
A Strategy Progress	Assess relevance and contribution to achieving the
B Objectives Progress	See Grant objectives for 2014/15 and provide
C Values Progress	Assess culture and values fit and progress towards

Figure 2. Value Scorecard service unit reporting template

overall framework. Some data is not processed back into the form; for example, financial data is produced at university level, tailored by the directorate accountant and packaged for each service unit. Attempting to dump this into the form would be nugatory. Other data elements are important to populate centrally to provide service unit leaders for a basis on which to add narrative comment; this applies particularly to people data, and this is discussed in the relevant dimension section below.

Examples of other data sources and measures not routinely collected through the template but managed centrally in the directorate include:

- survey data and action plans from surveys;
- strategic project and programme progress;
- national and collaborative initiatives;
- UK customer service excellence standard measures (and comparators from the collective RLUK initiative);
- university corporate data, including finance, HR and staff survey data and action plans; and
- SCONUL and UCISA (the UK University IT grouping) statistics.

There is also a need to relate directorate measures to overall institutional measures. The University governing body, Council, sets these and expects all university departments to have “clear departmental KPI toolkits” to define relevant measurements.

Directorate KPIs are chosen to map as directly as possible onto the university KPIs to provide clear line of sight, and are expressed as simply as possible:

- (1) meet need: measured mainly through satisfaction surveys;
- (2) resource: measured through financial data;
- (3) innovate: measured through successful and relevant new services;
- (4) engage: measured through relational breadth and strength;
- (5) align: measured through fit with the university and its strategies; and
- (6) risk: measured through failure avoidance and audit.

A test for the Value Scorecard is to provide indicators which satisfy governance that these critical areas are being managed effectively. These are not regularly or formally assessed for the Information Directorate at Council level, which considers the aggregation across the university. However a specific report from Information is submitted to council annually; this is in narrative form rather than the presentation of a narrow range of indicators, although some key measures and trend data is included.

The template approach has provided a much simpler way of aggregating data and narrative for the directorate’s annual report, and this remains a key influential method of providing university and broader stakeholders with a summation of annual activity, and a strong message of overall contribution and worth.

The next section takes each dimension of the Value Scorecard in turn, developing the meaning of each element and providing examples of what data is collected to support proof of worth.

Dimension 1: library capital

Library capital encompasses the classic components of capital assessment. Research libraries still provide, for the most part, collections, services and environments. All these have a capital value that requires estimation for a full appreciation of a library's total value. There is now almost a negative view of the value of large traditional physical collections. More work needs to be done to establish the residual value of physical collections against the cost of their ownership, and of the value of the extensive digital collections which we now rely on but do not necessarily own as assets.

Tangible capital

The data sought for library services at York includes:

- collections value data;
- services value data; and
- environments value data.

In practice, a jigsaw of tangible data is collected through the template that has not yet been added up to provide an overall capital asset valuation for the library. There is currently no real audience for this data, although there probably should be. This is in contrast to the IT templates and financial data, where the overall capital value of the technology on campus is regarded as critical to capital planning, and to the capital allocation to the directorate required to sustain it. Return on investment is not a measure strongly applied within the university, although business plans are sought for some cross-university projects. The correlation sought for the library at York currently is not therefore financial, but one where the value of library assets can be expressed in contributory terms to educational and research impact, and transcendent value to society and reputation. So, for example, collection strength and comparability to competitors is seen as more worthy of measurement effort in the York context than absolute financial evaluation (Massam and Elder, 2015).

Intangible assets

Intangible assets have received some measurement attention, particularly from a knowledge asset point of view (Kostagiolis, 2012). These might cover the many meta-assets that research libraries produce in their catalogues, websites, repositories and other digital developments. Data is collected through the template that assists in the valuation and evaluation of the development and growth of these assets at York. The digital library is a good example of a rapidly growing asset that is largely ignored in traditional measurement frameworks or statistical collections. The knowledge value of the staff is also a very significant asset, and the template allows this unit now to express its activity and value effectively; much of this was hidden previously. The relationship between this unit and academic departments is particularly strong, leading to initiatives that add value to the university in new ways that may not have been adequately captured through other reporting mechanisms.

The correlation sought in all the elements here is between the capital growth of the assets and the impacts they produce.

Human capital

A human capital framework for this dimension has been presented in more detail in another paper (Town, 2014). People value evidence is the key here, and the correlation of this with all other elements of the scorecard (if positive) will generate the proof of that value. The work that people do, and the way in which they do it is a powerful indicator that the values of the organisation are held and applied in practice. The assumption is that good work and behaviour will both reinforce those values, and also generate quality service.

In summary the key elements of this dimension are:

- capacity;
- capability;
- climate of affect; and
- culture of momentum.

Capacity and capability make up the talent and critical mass available for building value. Climate of affect is about how people feel about their work in the library, and the instruments used at York for collecting data on this element have been described in another paper (Town, 2015a). These three elements are insufficient to guarantee success; a culture driven through enablement towards programme and project capability and maturity is required to deliver the innovation that secures the library as a long-term asset. A culture of momentum is also key to the achievement of success in other dimensions of the scorecard.

Good leadership and management are essential components of all the elements of this dimension, and there are methods and approaches available to judge this. The role of leaders is to create capital value for their organisations, and the Value Scorecard is primarily a tool for organisational leadership. A further paper covers the use of people related data and evidence at York to guide and effect organisational change and development across seven years (Town, 2015a).

Much of the base people related data used in the Value Scorecard implementation at York is generated by the university's central HR function. This is partly populated and presented to service units quarterly by the directorate's staffing co-ordinator as a separate section of the performance template comprising:

- (1) Capacity measures:
 - staffing complement;
 - new starters and leavers;
 - contact changes; and
 - absences – annual leave, sickness.
- (2) Capability measures:
 - quantitative training data;
 - narrative on training and unit capability gaps; and
 - narrative on the value of training interventions.
- (3) Climate of affect:
 - staff survey data (provided periodically); and
 - narrative on climate, motivation, engagement, problem areas.

(4) Culture of momentum:

- quantitative data of project involvement (linked to the project list); and
- narrative on pattern of involvement, engagement and momentum.

Service unit leaders are expected to provide the narrative elements around the data, for example on capacity (or lack of it), and linking this to process and service peaks, troughs and performance, and also the quantitative data on the project involvement of their staff.

A number of questions have arisen from this work, enabling deeper consideration of, for example, training across the directorate, where there is large variation in expense and involvement across different service units.

Dimension 2: momentum*Innovation*

Jantz (2012) from his study of ARL libraries describes how “ambidexterity” is required for successful innovation. This implies the ability for libraries to develop innovative services alongside the existing business-as-usual process and service requirements. He also supports the idea that an innovative climate is essential, and that equates to the “culture of momentum” mentioned in the previous section. Jantz might also approve of the flatter structure at York as a prerequisite for innovation. Deiss (2004) also supports the contention here that the development of services that add value must take precedence, and that there is a duty to create “public value”. Deiss also draws attention to the importance of relationship management in innovation. This aspect is covered in the relational capital dimension below.

Momentum

The necessity of a scorecard element to recognise and incorporate the achievement of innovation by a research library is apparent from the above. However, innovation (and the cultures and structures to encourage it) alone is insufficient. Innovation implies a pace of change that is ahead of the competition, and therefore a consideration of time must be present in the measurement system.

Consequently the library momentum dimension implies a classical physics definition, in which the mass of innovation a library produces is multiplied by the velocity at which innovations are realised. Some of the other important evidence here will be proof of alignment of the innovations with corporate strategic goals, and data on the range, scale and success of the projects that deliver innovation. The correlation sought here will be with the growth of other kinds of capital achieved through these projects. Base data about the volume of projects, data and judgments on pace (particularly benchmarking against competitors’ innovations) is required. There is also an overlap and connection here with human capital measurement, in that library momentum will be associated with project and programme capability and capacity, as well as the meta-level assessment of organisational capability achieved through measurement tools such as the Quality Maturity Model (Wilson, 2015).

Strategy progress measurement

Strategic measurement provides the overall approach at York. The information strategy encompasses all university information projects, and consequently all directorate projects and improvement initiatives. The test of momentum is taken to be

the raw number of projects achieved within the annual plan. It has proven difficult to benchmark this momentum; few libraries do more than mount their strategies online; specific implementation plans and schedules are rare, and evidence of momentum rarer still. This is surprising given that research libraries have clearly been innovative, and there is a reputational opportunity missed here.

At York the strategy is measured in the following ways:

- programme-level measurement and assessment;
- project-level measurement and assessment; and
- information strategy benefits (a concordance linking specific programme outcomes to benefits and evidence).

The data here is available on the directorate website (University of York, 2015b).

The achievement of strategy is the area closest to governance structures at York. The information strategy is a university strategy rather than a “thing apart”. This rightly demands documented and updated measurement of the scale and pace of the achievement of innovation by the library and related services across the university.

The governance structure assists the proof of momentum through regular reporting upwards in the university and to the university’s governing body. Externally funded projects have their own routes for proof to external funders and stakeholders, ensuring a similar message of momentum is carried beyond the university’s boundaries, and creating a virtuous cycle of successful projects engendering further investment in innovation.

Dimension 3: relational capital

Library relationship measurement has been covered in another paper (Town, 2015b). In brief this paper suggests that academic and research libraries are fundamentally relationship organisations, because they must fit closely the academic activities of their parent institution. Hence the elevation of this area to a full separate dimension for libraries, rather than it being one element within a list of intangible assets. This relates to previous ideas of integration and fit; the effective academic library (Ellard *et al.*, 1995) defined an indicator P1.4 Liaison as “evidence of formal and informal communications between the library service, the senior management of the institution, academics and students [...] to assess the degree of effective and dynamic communication to inform service provision”. In other words, healthy relationships are essential to define service and its further development. Libraries tend to falter when their relationships fail, and so this dimension is critical to survival.

Relationship capital is the quantification of all the library’s relationships, sometimes referred to as “Goodwill” value assets. The on-going capture of relational data (and probably thereby some judgment of relational strength) will therefore be essential for measurement of this dimension. The correlation sought will be between relationship activity data, and performance improvement in both service and value terms arising from these good relationships. A multiple model for assessing the full range of library relationships has been provided elsewhere (Town, 2015b).

Implementation at York in this dimension has been enthusiastically and productively received. Each service unit was revealed to have active and positive relationships that were not fully appreciated by senior management. The relationship management service unit has been at the forefront of this activity. A focus on relationship data and strength has generated the development of a new CRM system, as well as the introduction of departmental action plans (Blake and Jesper, 2015).

Dimension 4: virtue

The idea of virtue suggests excellence, and in standard definitions this implies moral excellence, which may require higher standards of proof. Library virtue is about trying to capture the good that a library does (in Orr's (1973) terms) beyond those things that are good about it. These things are therefore likely to be transcendent rather than instrumental, although it is of course the services that create the transcendent effect. Thus the correlation sought is between library activity and its transcendent effects.

Although virtue is said to be its own reward, what is sought here is evidence of a virtuous circle in which excellence is rewarded by further investment and support to achieve successively higher levels of service. In times of pressure and financial constraint, some aspects of practical excellence might be traded off, but what cannot be lost in this context is the reputation gained by moral excellence. Library leadership and management must achieve and retain the confidence in the virtue of the library for its integrity, behaviour, outcome and impact. Measurement systems must therefore be geared back to library, institutional and societal values. Other measurement frameworks applied in libraries fail to fully recognise this critical judgement. This also ignores one of the academy library's greatest values; of being a uniquely impartial element of the university, treating equitably all comers. Whatever practical measures are selected for this dimension, they must add up to the creation of a reputation of virtue.

The components of the template in this dimension are quality and impact. Quality services are pleasing, satisfying and sometimes delightful, but they must also result in a positive outcome or outcomes. These outcomes may be short-term and utilitarian, that is contributing to specific elements of the teaching, learning and research cycle; or they may be transcendent, contributing to the development of permanent life, professional or vocational skills (e.g. information literacy) and ultimately societal benefit. Either way evidence needs to be actively sought and reported of both short and longer-term impact.

Quality

In York's case, quality-related measurement was already very well established prior to the introduction of the Value Scorecard. User satisfaction data is collected annually through a variety of surveys and these are implemented and analysed by the programme office. The university was the first in the UK to add the TechQUAL survey to annual LibQUAL+ surveys (Hall *et al.*, 2014), and with archives using the Public Services Quality Group survey, all major areas of directorate activity are covered by total market surveys. The directorate also now holds the national Customer Service Excellence award, with defined quality measures and targets (Knowles, 2015).

Other data is collected as required for specific improvement projects, and the culture is now sufficiently developed that service units or individual improvement projects will gather their own evidence directly, or draw on the programme office for support. Recent examples here include qualitative user experience investigations into research support, and a quantitative survey of reference desk interactions to provide analytics resulting in a major service model restructuring project.

Impact

Impact narrative at York is collected through the template. This has not so far generated much more than anecdotal evidence, although this have been very useful for

higher-level advocacy. York is working on the combination of student achievement data with library engagement to assist the proof of library impact on student progression (Stone and Ramsden, 2013).

Discussion and further work

Practical success

The implementation of the Value Scorecard at York has been a practical success, collecting a rich range of data and evidence of the worth of the library. The act of engaging with these methods has provided a cultural benefit, encouraging staff towards deeper understanding of their work and generating further investigation, improvement and innovation. There has been little resistance to the implementation, and the collection of this data has not been seen as threatening.

Performativity, in the sense of improving organisational effectiveness through measurement, is one underlying rationale for this initiative; another is more effective advocacy of the library within and beyond the institution. Both of these have benefitted from the Value Scorecard implementation as shown by improved scores attained in the national and local surveys that help form the judgment of the service and its reputation.

The scorecard score?

No dimensions of the scorecard have proven impossible to populate. In some areas only narrative has been provided, but this has not been a drawback in telling the story of the library. There are areas in which further work is required, either locally or more broadly to improve or define specific measures. The dimension names have not been used to frame advocacy discourse, but the framework has served to provide an ontology for staff in thinking about measurement and assessment. There are close relationships between the different dimensions of the scorecard, and the framework has not been a limiting influence in approaches to measurement.

Further work

There are areas where further work or understanding is required to make maximum use of the Value Scorecard approach at York. In summary:

- narrative provides an analytical challenge, and at York we have yet to organise and mine this data to full effect;
- impact proof through data set combination remains elusive; there are some specific local practical and ethical barriers;
- we have not engaged in great detail with the measurement of intangible or knowledge assets; the local context and audience are probably not yet ready to appreciate such measures;
- the recognition of relational capital and the development of relationship measurement, data collection, and visualisation has been a major success of this initiative, but we do not yet have a full CRM in place;
- overall there is a need to start combining and correlating data more effectively for proof of impact and value; and
- a dashboard for better visualisation of the scorecard remains a vision at this point, although tableau has been used extensively to augment many areas of data, and has assisted in the advocacy task.

Afterword

We have come a long way from Alcuin, but kept faith with his view that libraries need a plan and perspiration in this implementation. The case study institution has taken up the Value Scorecard approach to its management and measurement as a means of applying as much intelligence as is available to creating and sustaining a modern world-class university research library. Use of a values and value-based approach also fulfils the requirement suggested by Pors and Johanssen (2003) that library leadership should put an increasing emphasis on values, and recognise the importance of leadership to value creation.

Acknowledgements

Thanks to Ian Hall and Katie Burn, and to all Information Service Unit leaders and their staff at York for providing the data and evidence on which this paper is based. Thanks to Margi Jantti and the University of Wollongong for providing the template that was subsequently developed into the Value Scorecard collection tool at the University of York. Thanks also to Matt Stripe and HR colleagues at Nestle (UK and Ireland) for discussions and examples of people strategy and measurements. Thanks to the York Manuscripts Conference 2014 for enlightenment on the history of the earliest York libraries.

References

- Atkins, M. (2014), "Trends and developments in higher education", paper presented at the RLUK Conference, Birmingham, 12-14 November, available at: www.rluk.ac.uk/rluk14presentations/ (accessed 22 September 2015).
- Blake, M. and Jesper, S. (2015), "Measuring relationship capital at York: a local CRM solution", paper presented at the 11th Northumbria Conference on Performance Measurement in Libraries and Information Services, Edinburgh, 20-22 July, available at: www.york.ac.uk/about/departments/support-and-admin/information-directorate/northumbria-conference/presentations/ (accessed 22 September 2015).
- Bracke, P. (2015), "Social networks and relational capital in library service assessment", paper presented at the 11th Northumbria Conference on Performance Measurement in Libraries and Information Services, Edinburgh, 20-22 July, available at: www.slideshare.net/paulbracke/social-networks-and-relational-capital-northumbria (accessed 22 September 2015).
- Deiss, K.J. (2004), "Innovation and strategy: risk and choice in shaping user-centered libraries", *Library Trends*, Vol. 52 No. 1, pp. 17-32.
- Ellard, K., Ford, M.G., Naylor, B., Lines, E. and Winkworth, I. (1995), *The Effective Academic Library: A Framework for Evaluating the Performance of UK Academic Library*, HEFCE, Bristol.
- Garrison, M. (2014), "Treasures of books, treasures of wisdom: the earliest history and cultural significance of the eighth-century library at York minster", paper presented at 13th York Manuscripts Conference, University of York, York, 2-4 July.
- Hall, I., Stephens, J. and Kennedy, S. (2014), "Can you measure IT? The UK experience of TechQual+", *Performance Measurement and Metrics*, Vol. 15 Nos 1/2, pp. 32-40.
- Jantz, R.C. (2012), "Innovation in academic libraries: an analysis of university librarians' perspectives", *Library & Information Science Research*, Vol. 34 No. 1, pp. 3-12.
- Kaplan, R.S. and Norton, D.P. (1996), "Using the Balanced Scorecard as a strategic management system", *Harvard Business Review*, Vol. 74 No. 1, pp. 75-85.

- Knowles, J. (2015), "Customer service excellence at the university of York", *SCONUL Focus*, No. 64, pp. 8-12.
- Kostagiolis, P. (2012), *Managing Intellectual Capital in Libraries*, Chandos, Oxford.
- Marshall, S. (2015), "2025: what does the future hold", paper presented at the SCONUL Summer Conference, Southampton, 2-3 July, available at: www.sconul.ac.uk/sites/default/files/StephanieMarshall.pdf (accessed 22 September 2015).
- Massam, D. and Elder, R. (2015), "Using COPAC data to benchmark collections", paper presented at the 11th Northumbria Conference on Performance Measurement in Libraries and Information Services, Edinburgh, 20-22 July, available at: www.york.ac.uk/about/departments/support-and-admin/information-directorate/northumbria-conference/presentations/ (accessed 22 September 2015).
- Orr, R.H. (1973), "Measuring the goodness of library services: a general framework for considering quantitative measures", *Journal of Documentation*, Vol. 29 No. 3, pp. 315-332.
- Pors, N.O. and Johanssen, C.G. (2003), "Library directors under cross-pressures between new public management and value-based management", *Library Management*, Vol. 24 Nos 1/2, pp. 51-60.
- RIN and RLUK (2011), "The value of libraries for research and researchers", a RIN and RLUK report, Research Information Network, London, March, available at: www.rluk.ac.uk/wp-content/uploads/2014/02/Value-of-Libraries-report.pdf (accessed 6 October 2015).
- Self, J. (2003), "From values to metrics: implementation of the Balanced Scorecard at a university library", *Performance Measurement and Metrics*, Vol. 4 No. 2, pp. 57-63.
- Shore, E. (2014), "Finding the right scale: the need for above campus solutions", paper presented at the RLUK Conference, Birmingham, 12-14 November, available at: www.rluk.ac.uk/rluk14presentations/ (accessed 22 September 2015).
- Stone, G. and Ramsden, B. (2013), "Library impact data project: looking for the link between library usage and student attainment", *College and Research Libraries*, Vol. 74 No. 6, pp. 546-559.
- Town, J.S. and Kyrillidou, M. (2013), "Developing a values scorecard", *Performance Measurement and Metrics*, Vol. 14 No. 1, pp. 7-16.
- Town, S. (2014), "The value of people: a review and framework for human capital assessment in academic and research libraries", *Performance Measurement and Metrics*, Vol. 15 Nos 1/2, pp. 67-80.
- Town, S. (2015a), "Evidence based organizational change: people surveys, strategies and structures", *Library Management*, Vol. 36 Nos 8/9 (in press).
- Town, S. (2015b), "Measures of relationship capital for the Value Scorecard", *Library Management*, Vol. 36 No. 3, pp. 235-247.
- University of York (2015a), "Awards and achievements", available at: www.york.ac.uk/about/awards/ (accessed 27 October 2015).
- University of York (2015b), "Information strategy projects", available at: www.york.ac.uk/about/departments/support-and-admin/information-directorate/projects/ (accessed 22 September 2015).
- Wilson, B. (2009), "Accelerating relevance", in Hiller, S. *et al.* (Eds), *Proceedings of the 2008 Library Assessment Conference, Seattle, WA, 4-7 August, 2008*, Association of Research Libraries, Washington, DC, pp. 13-15.
- Wilson, F. (2015), "The Quality Maturity Model: your roadmap to a culture of quality", *Library Management*, Vol. 36 No. 3, pp. 258-267.
- Zairi, M. (1994), *Measuring Performance for Business Results*, Springer, Dordrecht.

About the author

Stephen Town is the Director of Information and University Librarian at the University of York, UK. Stephen has taught, researched, presented, consulted and written widely on library management, strategy and performance measurement. Stephen is the Convener and Chair of the Editorial Board of the Northumbria International Conference on Performance Measurement in Libraries and Information Services, is a member of the Boards of the Library Assessment Conference (North America), Performance Measurement & Metrics, and the LibQUAL+ Steering Committee (ARL). Stephen Town can be contacted at: stephentown54@gmail.com