

Measuring to learn whilst learning to measure

John Parsons

John Parsons is based at the Resource Alternatives/Australian Productivity Council, Flagstaff Hill, Australia.

Summary

Purpose – A measurement system that strives to close the gaps between measures, vision and culture by aligning the cognitive and affective domains will address all the substantive measurement issues faced by leaders in complex organizations, thereby enabling the potential for organizational learning, enhanced decision making and sustainable performance improvement to be realized. This paper aims to explore the key technical (strategic) and social (cultural) issues that underpin the design and implementation of such integrated systems and the supporting tools and techniques available.

Design/methodology/approach – This article analyses measurement systems and how they apply to decision makers.

Findings – The paper identifies vision, culture and measures as the elements of performance that must be aligned, highlighting the key dangers of misalignment and necessary remedial actions.

Originality/value – The paper demonstrates the importance of an organization's vision, culture and measures, and the need for the measurement system to address the cognitive (learning to measure) and affective (measuring to learn) domains. It defines new roles for practitioners and highlights the dangers that these bring despite the potential benefits for decision-makers.

Keywords Measurement systems, Culture, Learning

Paper type Conceptual paper

Introduction

The purpose of measurement is to stimulate actions to improve performance and it should be an essential and integral component of all organizational change and improvement efforts. If the most appropriate actions are not being taken – for whatever reason – then the measurement system has failed. By and large, appropriate actions depend on good strategic alignment and learning, and learning depends on the cultural environment. Successful design and implementation of measurement systems will depend, therefore, on both social and technical perspectives being addressed. Furthermore, the practitioner has a responsibility to help leaders see how measurement is connected to organizational success – but success as they define it!

Most measurement efforts are about *learning to measure* – tools and techniques. But measurement is not just about numbers and systems; it's also about having the right attitudes about why you are measuring in the first place. Building and using measurement systems that foster improvement – *measuring to learn* rather than to report – represents a quite different management philosophy to that traditionally found in organizations where stability is the goal and control dominates the design and application of measurement systems.

Since measurement systems are only as good as the decisions they evoke, expanding the range and number of indicators being evaluated (as in a balanced scorecard) only changes the way you do business if your worldview is similarly expanded. The social or cultural

perspectives of measurement, which focus on what measured results mean and embrace interpretation, judgment and learning, are no less important than the more popular technical ones of data specification, analysis and portrayal, which focus on how measurement is accomplished. Only by embracing both these perspectives can the full potential of integrated measurement systems be realized and, clearly, such a perspective has relevance for both the users of measurement systems (decision-makers) and measurement practitioners.

The performance template

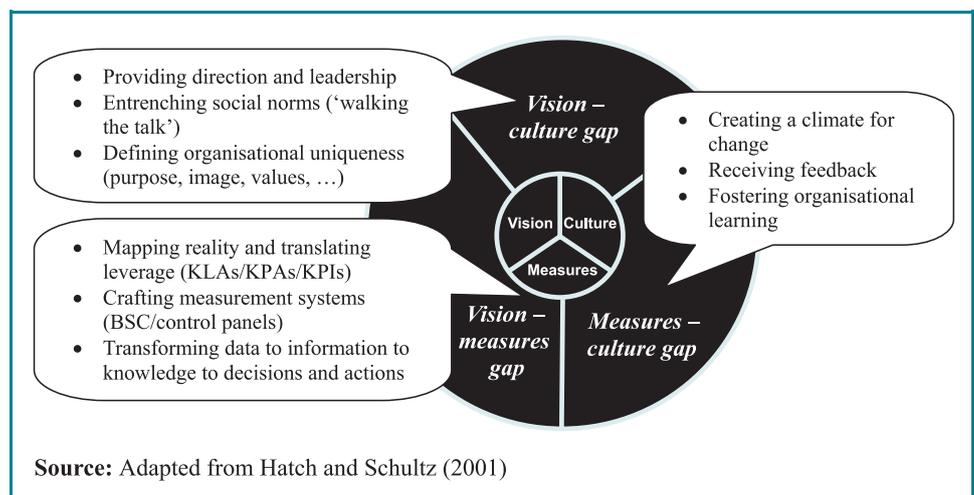
A measurement system that strives to align both the cultural and strategic domains and closes the gaps between measures, vision and culture offers opportunities to address all the substantive measurement issues faced by leaders in complex organizations in a positive way. I believe that the Performance Template (Figure 1) helps everyone involved in the process of developing measurement systems understand how measurement, vision and culture interact. Alignment of these three elements underpins the design, implementation and application of measurement systems that simultaneously satisfy both strategic and cultural demands, trigger individual and organizational learning, ensure that measures give effect to vision and strategy and, consequently, facilitate long-run sustainable performance improvement.

Gaps can arise between any of the segments. A gap between the vision and culture segments would revolve around such issues as the provision of clear direction by the leadership. This in turn would beg questions as to whether the vision was sufficiently compelling and inspiring to the organization's stakeholders.

Similarly, a gap between the vision and measures segments would be concerned with learning to measure issues such as translating the vision into appropriate goals, objectives and measures and the use of measurement systems (like the balanced scorecard). Gaps here would raise questions such as whether the measures accurately reflected the organization's strategic goals and objectives in a balanced and effective way.

Finally, gaps that arise between the measures and the culture would be concerned with measuring to learn issues such as feedback, learning and change. Gaps here would pose questions such as whether the measurement results triggered appropriate behaviors at all levels – behaviors that led to enhanced decision-making and sustainable performance improvement.

Figure 1 The performance template



Measurement practitioners would not ordinarily address gaps between the vision and the culture. Suffice it to say that, if any such gaps exist, then the design and implementation of an integrated measurement system is simply not possible.

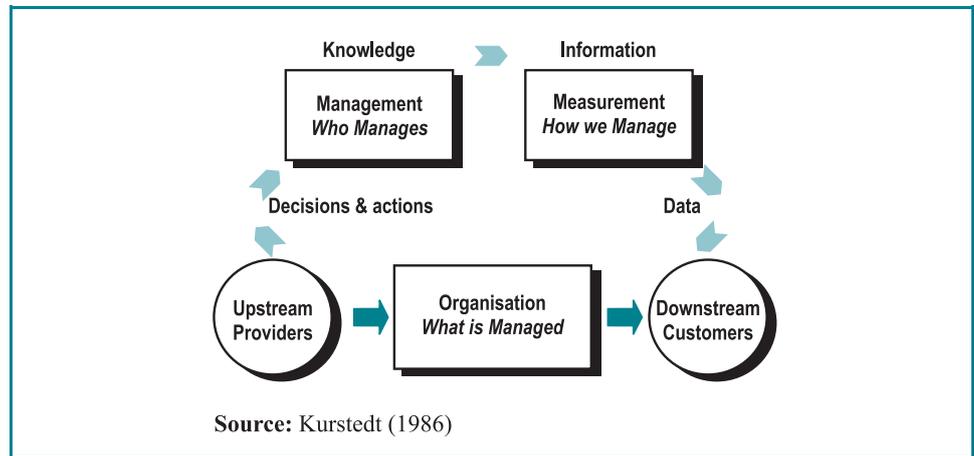
Table I highlights the two main areas of the Performance Template that *are* relevant to the measurement practitioner (Parsons, 2004). Learning to measure resides in the cognitive domain of thinking and judging and is generally concerned with *what* needs to be done. Measuring to learn, on the other hand, resides in the affective domain of feeling and emotions and is generally concerned with *why* this needs to be done. Operating in each domain gives rise to separate sets of actions – although occasionally it is possible to address both domains simultaneously.

The cognitive domain

This more technical milieu demands approaching the design from a strategic perspective and this typically begins with the analysis of the current reality – covering the value chain and the identification of key leverage areas (KLAs) or strategic drivers. At this stage it is possible to define the type of measurement system that is appropriate and commence the search for, and specification of, key performance indicators (KPIs) that will reflect progress. Once this is achieved, data specification, information portrayal and statistical/confirmatory analysis follow. Design and implementation typically mirror a cycle of actions to decisions, decisions to knowledge, knowledge to information and information to data as set out in Figure 2.

Table I The interaction of the cognitive and affective domains	
<i>Learning to measure</i> <i>Operating in the cognitive domain where thinking and judgement occur</i>	<i>Measuring to learn</i> <i>Operating in the affective domain where change occurs</i>
<i>Aligning vision and measures</i> Mapping the value chain, understanding input/output relationships and the notion of strategic leverage Designing a <i>balanced scorecard</i> or <i>control panel</i> of performance indicators that are representative of the complex array of strategic actions taking place Portraying information and specifying, collecting, processing and validating data Following the path of data to information, information to knowledge, and knowledge to decisions and actions (Parsons, 2001)	<i>Aligning measures and culture</i> Surfacing mental models/value systems and creating a climate for change Fostering organizational learning and the search for meaning Using dynamic group processes to engage an extended system of stakeholders in the development and deployment of measurement systems (representation from management, employees, unions, customers, suppliers, owners, . . .) Receiving feedback and constructively managing performance reviews
<i>The purpose of addressing this domain is to:</i> Ensure that the measures, actions, strategy and vision are aligned Achieve a strategic balance of measures (financial, customer, internal business processes, learning & growth) Gain all-round vision from a measurement perspective (efficiency, effectiveness, QWL, productivity, profitability, innovation, quality (Sink <i>et al.</i> , 1995)) Stimulate and entrench systems thinking.	<i>The purpose of addressing this domain is to:</i> Challenge assumptions underpinning what is important Ensure buy-in from those being measured so that they respond to the measurement signal Gain all-round vision from an extended stakeholder perspective – “get the system in the room” (Weisbord, 1992) Build core competencies and an enduring capacity to learn – avoid “event level” analysis Use measurement as communication.
<i>Actions in the cognitive domain address the question “What needs to be done?”</i>	<i>Actions in the affective domain address the question “Why should we do this?”</i>

Figure 2 Management systems model



Software is useful but only insofar as it helps facilitate the data to information stage.

This is familiar territory to those who have implemented integrated systems such as the balanced scorecard (BSC). It calls for the use of more traditional consulting roles such as technical advisor, teacher and expert.

Examples of gaps between vision and measures

Managers and practitioners in a large commercial bank were interested in an improved measurement system but were preoccupied with more elaborate manipulation of existing data. There was no inclination to link measurement to organizational vision and generally all references to it were met with confusion and rejection. No real progress was possible.

Significant progress was made, on the other hand, with a large coal mine. Although the vision was absent, organizational leaders agreed to a workshop to formulate the vision and clarify the current reality, paving the way for the proper specification of KLAs and performance indicators. From this perspective, at least, the measurement system proved a success.

The affective domain

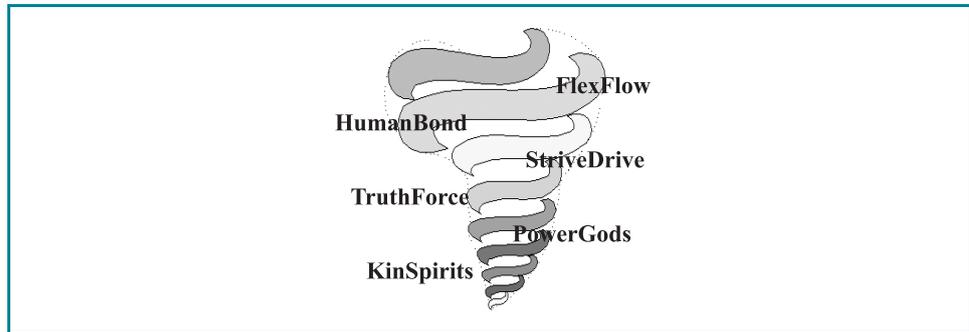
The social perspective demands broad acceptance from all stakeholders and typically covers psychological conditioning, chartering and coaching of both the measurement and executive teams, exploratory analysis and the search for meaning, matching of measures to reward and other organizational systems, restructuring of performance reviews and personal change. Success lies in part in understanding the organizational culture, its propensity for change and how to apply organizational change and transformation methodologies (Parsons, 2005).

Cultural aspects can be addressed through assessing both cultural *thema* (or value systems) and cultural *schema* (or artefacts). Value systems can be profiled using spiral dynamics (Beck and Cowan, 1996). This provides a broad psychological map of the organization in terms of the dominance of the value systems depicted in Figure 3.

How this cultural profile translates into mental models, behavioral patterns and other artefacts can then be discerned using the three levels approach (Schein, 1999).

Predicting how current behaviors and attitudes might (or might not) evolve into future (or even desired) behaviors can be tricky. Cultures are remarkably resilient and notoriously difficult to change. It is helpful to have knowledge of the organization's change states (open or closed) and where it, and especially those involved with crafting the measurement system, reside in terms of their psychological progress. It is incumbent on the measurement

Figure 3 Spiral dynamics



practitioner to facilitate movement from contentment through denial and confusion into renewal. These change states are represented by rooms in the so-called 4-Room Apartment (Janssen, 1982) (see Figure 4).

In order to ensure that the measurement team members are open to new ways of thinking and they can manage their own group processes in future, it is vital to assess their inclination to work together as a team. Together with value systems and change states, team role profiles (Belbin, 1996) can be utilized to facilitate dialogue about attitudes and behaviors so as to make mental models explicit. Unless we can adjust our mental models (move out of *denial*), we cannot learn and we cannot change.

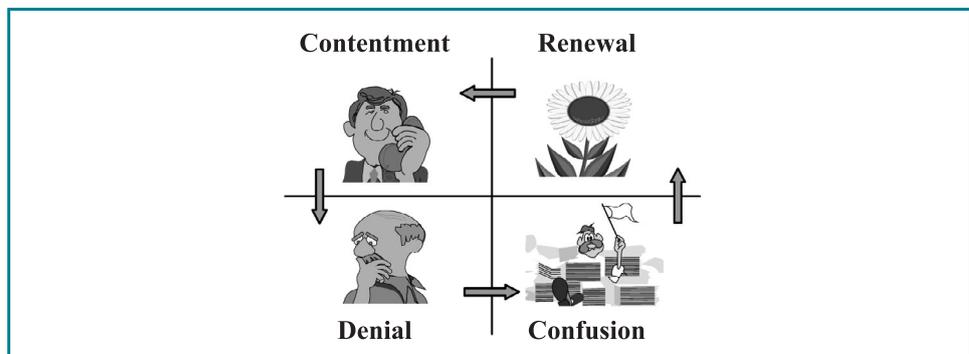
This is probably less familiar and less comfortable territory for most measurement practitioners and consultants. Nevertheless, it is territory that must be traversed if we want to see our favourite solution become a reality. Working in the affective domain not only requires a quite different array of tools and techniques but it also for calls for the use of less traditional consulting roles such as reflective observer, facilitator and even challenger.

Examples of gaps between measures and culture

Despite obvious alignment with the vision and goals, the leadership of a blue chip service corporation rejected the proposed measurement system because the results were simply too robust to be rationalized away. Executives explained that it offered no “corporate parachutes” and, in the prevailing “blame culture”, this exposed them to reprisals for under-performance.

On the other hand, an integrated electricity utility provided significant support to managers within the new strategic business units by helping them objectively evaluate the results of organizational performance so that the underlying causes were uncovered.

Figure 4 4-room apartment



Similarly, the measurement system was also used to give utility business unit managers assistance during budgeting to ensure that targets were both consistent with corporate goals and plausible in terms of the implied productivity levels. Putting measurement into the service of those who wanted to learn and do better, rather than use it for external control, effectively closed the measures-culture gap.

The measurement team

My preferred approach is to have design and implementation carried out by a dedicated measurement team with assistance and guidance, if appropriate, from an outside consultant. From a technical/cognitive perspective, the measurement team is selected on the basis of organizational knowledge, ability and influence. This usually means assembling a cross-functional, multi-disciplinary group. However, from a social/affective perspective, the team is also selected in terms of complexity of thinking, team roles and value systems.

Typical interventions

As far as reducing to practice is concerned, interventions typically move through three broad phases – planning and preparation, design and implementation and monitoring progress.

Planning and preparation would involve:

- undertaking a situation appraisal embracing a strategy review, culture audit, reward systems, existing measurement systems and assessment of retention rates;
- identifying the measurement team, sponsor(s) and champion; and
- facilitating psychological conditioning of the measurement team and leadership.

Design and implementation would address:

- determining user needs and understanding the value chain;
- training the measurement team in measurement techniques and the linkages between measures, actions and goals;
- design and implementation of the system, specifying and collecting data; and
- promoting learning and communication through the use of chartbooks and visible measurement systems.

Monitoring progress would cover:

- system review after (say) three to six months;
- further appropriate training where necessary; and
- on-going assessment of team functioning (self-evaluation).

Conclusions and caveats for practitioners

Since much of this paper has been devoted to the profound influence of organizational culture, there is an obligation to examine the hazards that might confront the unwary practitioner. Cultural questions are, by their very nature, subjective and modern management tends to function according to strict objective, even mechanistic, guidelines. So there is always a temptation to mistakenly treat culture shifts as merely another step in the implementation process.

That this myopic view is still prevalent is demonstrated in an exchange of views between two BSC practitioners that appeared on the website of a UK consulting firm (although not necessarily endorsed by that firm). In reply to the question from one BSC practitioner “... does the organizational climate and culture need to be ready?”, the other stated “Most important ... is that you have the highest level support ... [as] you will need to borrow this authority to overcome the inevitable resistance to a changing management culture.”



Implicit in the response is the notion that authority alone can overcome resistance and drive cultural changes. Spiral dynamics teaches us that value systems change reluctantly and slowly and they certainly cannot *be* changed – a warning that would-be change consultants and managers should heed to their advantage! Getting people outside their comfort zones is tough. Edgar Schein does offer some hope when he states that although “Culture is complex, powerful, deep and stable. It *can* be evolved – if you think clearly about it and understand its dynamics” (Schein, 1992).

Unfortunately, given the present organizational climate, attempts to introduce integrated approaches are quite likely to be eclipsed by a quick fix mentality. Research in Australia and New Zealand (McCarthy, 2003) covering over 8,000 organizations and 120,000 individuals has shown the predominance of a culture that would have more than a little difficulty appreciating the ramifications of integrated approaches – whether these be measurement systems such as the balanced scorecard or transformation methodologies such as BPR, TQM and learning organizations. Not surprising that so many of these fail so spectacularly. Even Robert Kaplan’s former colleague, Tom Johnson, argued that the introduction of approaches such as the balanced scorecard required a thorough rethinking of business assumptions (Johnson, 1999).

If the organizational culture does not support learning and disclosure, what can be done, given the goal of bringing measurement into the service of learners? It becomes a question of establishing the extent to which the full potential of integrated approaches like the BSC can be realized. If measures are aligned with vision then at least the leadership might experience a benefit, albeit limited. If the closed minds of a blinkered leadership severely restrict the choice of measures, then even that might be optimistic.

However, the purveyor of measurement systems has a responsibility to ensure that the customer (the decision-maker) understands what benefits are possible before embarking on the task of design and implementation. And, if the decision-maker finds this revelation unacceptable, then perhaps it is best to walk away. User expectations must be delicately but honestly managed. Integrated measurement systems can only really flourish in the presence of integrated thinking.

If all this sounds like hard work, then you are receiving the correct message. It is as well to remember that old habits die hard and as well to forget the quick fix. Be ready for the long haul.

But, as always, we have choices. Norman Mailer captured the essence of this when he said “Then there was that law of life so cruel and just, which demanded one must grow or pay more for remaining the same” (Mailer, 1955).

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Further reading

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Corresponding author

John Parsons can be contacted at: ra.australia@bigpond.com

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