

See discussions, stats, and author profiles for this publication at: <https://www.researchgate.net/publication/275219583>

Strategy maps: the essential link between the Balanced Scorecard and action

Article in *Journal of Business Strategy* · April 2015

DOI: 10.1108/JBS-10-2013-0101

CITATIONS

25

READS

1,124

1 author:



[Rainer Lueg](#)

Leuphana University Lüneburg

69 PUBLICATIONS 860 CITATIONS

[SEE PROFILE](#)

Some of the authors of this publication are also working on these related projects:



Value-based Management [View project](#)



Journal of Business Strategy

Strategy maps: the essential link between the balanced scorecard and action

Rainer Lueg

Article information:

To cite this document:

Rainer Lueg , (2015), "Strategy maps: the essential link between the balanced scorecard and action", Journal of Business Strategy, Vol. 36 Iss 2 pp. 34 - 40

Permanent link to this document:

<http://dx.doi.org/10.1108/JBS-10-2013-0101>

Downloaded on: 20 April 2015, At: 13:01 (PT)

References: this document contains references to 15 other documents.

To copy this document: permissions@emeraldinsight.com

The fulltext of this document has been downloaded 2 times since 2015*

Access to this document was granted through an Emerald subscription provided by 132724 []

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.

Strategy maps: the essential link between the balanced scorecard and action

Rainer Lueg

Rainer Lueg is an Associate Professor of Management Accounting and Control based at Department of Economics and Business, School of Business and Social Sciences, Aarhus University, Aarhus, Denmark.

Introduction

A strategy should not just exist as a vision among top managers in an organization. It should also be linked to a strategic performance measurement system (SPMS) that helps all employees achieve their strategic objectives in a set time frame. Successful organizations start building this linkage by communicating their values, resources and possibilities to lower-level managers. Most of the time, SPMSs take on the role of such a communicative device. They keep track of crucial financial (lagging) measures that document its past performance. Also, they direct the managers' and employees' attention to strategically important non-financial (leading) indicators that are predictive of future financial performance (Nørreklit *et al.*, 2012). One of the most widely diffused performance measurement systems is the balanced scorecard (BSC), which was developed by Robert S. Kaplan and David P. Norton. The authors claim that the BSC will help organizations "put strategy into action". Therefore, vision, mission and strategy are the starting points for every well-implemented BSC.

However, the BSC can fail in conveying strategies if it is just a collection of performance measures without the logic of the business model behind it. A typical problem is that top managers forcefully cascade the corporate BSC apart from the business model of the individual unit. Even if this is accounted for, another pitfall is that top managers do not consider unit-specific strategies when they evaluate middle manager performance. Rather, they avoid operational measures and prefer measures that are common across the entire organization (common measure bias). Naturally, such inappropriate evaluations cause middle managers to feel unfairly treated and strengthen the notion that top management has limited insight into their specific business models (Lueg and Jakobsen, 2014).

As a potential cure, best practice examples suggest that top managers should use strategy maps to explain the business model behind the BSC. They use diagrams to make cause-and-effect chains explicit and thereby explain how strategic objectives work together across functions. Research actually shows that strategy maps foster a better understanding of the BSC among employees, create greater commitment, reduce resistance, cultivate a feeling of fair evaluations and are far superior to a stand-alone BSC in communicating how to achieve strategic goals. Also, strategy maps facilitate evaluations of the relevant environment so top and middle managers can engage in discussions, challenge each other's assumptions and "construct" the causalities of their organization jointly (Lueg and Nørreklit, 2012). Yet only a few academic studies have analysed strategy maps. It is the goal of this article to arrange the results of these which are relevant for corporate practice.

JEL classification – M10, M40, M48, M52

The author appreciates the contribution of Oana Alexandra Albertsen and Pernille Julner to this work.

“The balanced scorecard can fail in conveying strategies if it is just a collection of performance measures without the logic of the business model behind it.”

The BSC

Kaplan and Norton, who introduced the BSC in 1992, found that existing performance measurement systems that primarily rely on financial accounting measures had become obsolete (Kaplan and Norton, 2004). In response, they developed the BSC to give organizations a comprehensive view of their business model. The BSC framework would help the organization translate its strategic objectives into a coherent set of performance measures. The purpose was to create a management system where measures of past financial events (lagging indicators) complement operational measures which are the drivers of future financial performances (leading indicators). The BSC helps highlight what needs to be done to increase shareholder value.

The BSC features four perspectives (financial, customer, internal processes, learning and growth/innovation), which explain how the strategic objectives of an organization can be attained. Each objective has to be expressed in terms of a measurable key performance indicator with a target level so the responsible employees know how much of this measure has to be achieved in a given time frame. The BSC also provides employees with action plans on how to achieve the set target. These plans may be detailed work descriptions at one extreme, or empowerment at the other extreme. Kaplan and Norton highlight that the BSC has to be adjusted for each member of the organization. For instance, the measures of the BSC of the CEO must be different (but of course related) to the ones that sales managers have on their personal BSCs. With only a few measures for each perspective, the BSC helps managers focus on what really counts for their business model.

An extension to the BSC: the strategy map

The latest modification of the BSC introduced the strategy map, depicting an organization's business model, to translate, communicate and measure strategy (Kaplan and Norton, 2004). It simplifies the maze of strategic objectives by illustrating how a few strategic objectives link tangible and intangible assets to value creating processes (Kaplan and Norton, 2004, p. 32; Lueg *et al.*, 2013). Once the strategy map is drafted, it becomes much easier for top managers to communicate their visions and expectations to middle managers and employees. The strategy map is the foundation of the BSC. Kaplan and Norton (2004) suggest that all strategic objectives in the BSC need to come directly from the strategy map to illustrate how business is conducted to achieve the strategic goals, while the BSC measures performance outcomes. Strategy maps expose gaps between strategy formulation and execution, direct attention to flaws in the BSC and enable top management to reformulate strategies if necessary. As a result, organizations can be sure that the attainment of the BSC's (operative) objectives ensures reaching its strategic goals.

Advantages of using strategy maps for planning and controlling

This section synthesizes the key findings on strategy maps in practice.

Planning

Strategy maps improve understanding the business model behind the performance measurement system, which must fit the strategy it is supposed to assess. The strategy map functions as a link between these two. Findings across hundreds of organizations

show that strategy maps are especially helpful during strategy development because this is the best time to simultaneously tailor the performance measurement system (as an example, cf. [Tapinos *et al.*, 2010](#)). The strategy map forces BSC-implementers to think about specific goals they want to achieve, and how they need to be measured. Research documents that employees who use strategy maps find it easier to identify strategically important activities and are more effective in quantifying targets during the subsequent BSC implementation. Overall, it appears that the strategy is reflected better in the performance measurement system if a strategy map is involved beforehand. Once the BSC is designed, it needs to be communicated to all future users of this system within the organization. The strategy map appears to be a strong facilitator of explaining the BSC to novice users because it builds on the business model, not isolated numbers.

Strategy maps ensure more acceptance from employees. Managers who are involved in selecting strategic initiatives see their choices as more successful than managers who are simply presented with a balanced set of measures where the causal links are already given ([Tayler, 2010](#)), as managers with long tenure have valuable experience and a personal style of managing. This can lead to a situation where some managers silently judge or ignore the inputs from their colleagues or assess the contributions of others to the BSC as inadequate (“motivated reasoning”). This self-reliance on how business needs to be conducted can be obstructive to a common BSC. Using a strategy map can resolve this issue because managers are forced to make their mental models of the organization’s actual business model explicit and the maps help align the different mental models of managers. Once this is done, it becomes easier to resolve misunderstandings and find compromises. Conflicts at this point can be seen as fruitful and preferable to superficially agreeing to a BSC that managers never intend to use. As a result, a jointly drafted BSC will receive more acceptance than one that was simply enforced, however well-designed the BSC might have been.

Strategy maps help managers understand unit strategies and synergies between units. Once a corporate BSC has been drafted, Kaplan and Norton suggest cascading the BSC across the remaining units of the organization. This approach may lead to the problem that top management forces business units to agree to BSC measures beyond their control ([Lueg and Jakobsen, 2014](#)). A strategy map can highlight incongruences of the corporate BSC with the BSCs of business units. In-depth discussions of the possibilities and controllability by middle managers in these subunits will ensure that top management understands the specific strategies of the business units as well as their limits of accountability. As an example, [Luo *et al.* \(2012\)](#) explain how the use of strategy maps improved the BSC implementation in a medical service department. To ensure that the business unit strategies could contribute as much as possible to the corporate strategy, the middle managers were allowed to draft their own strategy map and BSC.

Controlling

Strategy maps help managers in later phases when the BSC is not used for planning but for control and evaluation purposes. There are many good examples of this from practice.

Strategy maps facilitate links to BSC-based incentives. As one mantra of the BSC developers is “what you measure is what you get”, the BSC must eventually be linked to the compensation system, otherwise it cannot be considered a “real” BSC. Yet very few

“The latest modification of the BSC introduced the strategy map, depicting an organization’s business model, to translate, communicate, and measure strategy.”

“A jointly drafted BSC will receive more acceptance than one that was simply enforced, however well-designed the BSC might have be.”

organizations make this link. In a survey among organizations in the German-speaking areas of Europe, 24 per cent of all surveyed organizations claim that they use a BSC, but only 5 to 7 per cent link the BSC to strategy or an incentive system (Speckbacher *et al.*, 2003). Difficulties in making such links are rooted in ill-defined BSCs that are a collection of numbers that do not tell the story of how the organization functions. Once strategy maps are used, links to compensation become easier to make, because it is clearer what needs to be rewarded. As a result, organizations report that efficiency and effectiveness of their operations increase notably (Malina and Selto, 2001). But BSC incentives that are not synchronized with the strategy map can lead to selfish and dysfunctional decisions, such as the elimination of a profitable product line.

Strategy maps improve feelings of fairness among evaluated managers, who are more prone to accept and act on incentive systems that they understand. The explicit relationship between the strategy and the BSC reinforces the role that each manager has to play and the relationship explains why certain actions are sensible in the achievement of strategy and thus need to be rewarded (Greatbanks and Tapp, 2007).

Strategy maps lower the common measure bias, which indicates that top managers ignore the unit-specific (operative/non-financial) BSC measures of the middle managers they evaluate. Instead, top managers rely on (often financial) measures that are common across all units, such as revenue or profit, which makes a mockery of the whole BSC implementation. Controlled experiments show that this common measure bias can be lowered by strategy maps that explicate the specific business unit strategies to top managers (Humphreys and Trotman, 2011). Top managers need detailed information on the organizational strategy itself to break down strategy and relate the unit-specific measures to the evaluated middle managers. If the BSC does not have a strategy map, top managers tend to disregard specific strategic information, even though it is officially part of the BSC.

Strategy maps raise the receptiveness for weak signals and early warning indicators. Critics of the BSC emphasize that its four perspectives are inward-looking, possibly with the exception of the customer perspective, and the BSC ignores developments in the industry-specific, social and natural environments. The strategy map is an opportunity to reduce this weakness by pointing to the critical success factors of the business model. Experiments show that managers can use information from the strategy map to assess the effectiveness of organizational strategy. If managers receive a set of strategic objectives organized in a map, they make better strategic judgements than managers who receive the strategic objectives in a random order. For instance, the latter would be the case if the BSC is simply a collection of performance indicators (Cheng and Humphreys, 2012). Overall, strategy maps facilitate managers' ability to evaluate external information and filter items of lower relevance to strategy. This appears to be especially true in contexts where the signals from the external environment are weak and the contained information is noisy.

Conclusion: what we know about strategy maps

Although a vast number of studies on the BSC exist, only a few reveal the importance of strategy maps as the crucial link between strategy and the BSC. In general, management involvement, strategic alignment and communication throughout the organization are key factors when transforming strategy into action. Strategy maps seem to be a valuable tool, as they simplify the complex causal relations which the BSC is built upon. *Both proponents*

and critics of the BSC agree that a performance management system (such as the BSC) cannot work in practice if it lacks strategic causality, which may explain why the BSC is often seen as irrelevant for practice (Nørreklit *et al.*, 2012). Organizations put great effort into implementing the four BSC perspectives as a set of numbers, but forget to construct the causalities along these numbers.

Evidence shows positive results in using strategy maps for planning, as they are more suitable for communication than the BSC itself. They lead to a better understanding of the strategy and enable managers to make better decisions, increasing the chances of reaching performance goals. Once managers understand the strategy map, they show greater commitment, and implementation is facilitated. It is therefore crucial to let middle managers and employees participate in the design and implementation of the BSC or conflict and reluctance to change may arise.

Strategy maps prove valuable for evaluating managers, units or projects, as they facilitate the ability of managers to evaluate external information and filter items of lower relevance to strategy. As the BSC has no direct link to the external environment, strategy maps need to establish the market–strategy–BSC relationship or the BSC cannot be an effective control system. Users of BSCs with strategy maps are better at quantifying the achievement of targets and perceive their choices to be more successful than managers who are simply presented with a balanced set of measures where the causal links are already given. Last, the feeling of fairness improves substantially if top managers do not only explain the measures of the BSC to middle managers but also why and how these measures work together in a strategy map.

A common pitfall, even in organizations that have a strategy map for their BSC, is the common measure bias which leads top managers to overemphasize the measures that are common across all units (mostly financial numbers) when evaluating middle managers or employees. Top managers neglect the unit-specific measures and the specific strategy of the unit, but they should attempt to avoid this bias by emphasizing the importance of unit-specific measures, or by letting middle managers participate in the design of the BSC.

The road ahead: what we still need to know

Many issues with strategy maps and BSC implementations remain.

To start with, what is a BSC, and what is not? Does it have to be implemented across the entire organization? Is the strategy map an integral part of the BSC? Does the BSC have consequences, e.g. in terms of incentive systems? Managers should always first ask exactly what their dialogue partners are talking about. A single, definitive BSC does not exist. It is always very specific to the unit that implements it (Lueg *et al.*, 2013).

Do we hear the whole story?

So far, very few case studies tell us about the usefulness of a strategy map-based BSC for both initial decision-making and later evaluations (Greatbanks and Tapp, 2007; Malina and Selto, 2001). Maybe the BSC is similar to budgets: great for planning, unsuited for evaluations. Managers should ask for implications like changes in employee behaviour, improved competitive positions or changes in the bottom line instead of just admiring the BSC.

“Experiments show that managers can use information from the strategy map to assess the effectiveness of organizational strategy.”

“Users of BSCs with strategy maps are better at quantifying the achievement of targets and perceive their choices to be more successful.”

What are the confounding effects?

Maybe some successful organizations do implement other innovations such as total quality management, customer accounting or value-based management (Burkert and Lueg, 2013). Maybe these organizations have uncontested markets or great employees who perform excellently no matter what. The BSC might just not need to be the sole source of this success. Current evidence from practice does not account for these alternative explanations (exception: Tapinos *et al.*, 2010).

What about the interface with customers and products?

Studies on strategy maps have a strict focus on top managers, but value is created when products are developed and manufactured or when they are sold to customers. So another interesting aspect could be to obtain reflections from middle managers or employees who execute the strategy every day. Do they experience the BSC as a relevant tool which guides their work?

What can we generalize?

Most of the studies I found are either laboratory experiments with business students or single-case studies. They can provide us with detailed pictures of the BSC, of course. But what about the big picture across entire industries, geographic regions or stock market indices? Managers should be aware that our knowledge on strategy maps might not yet be generalizable.

Is causality really universal?

Reading research on the BSC, one might think that business models are universal. Kaplan and Norton suggest BSC perspectives and a standardized strategy map that argue the following: (→) educated employees perform great (→) internal processes that satisfy customers, and their (→) loyalty boosts (→) profits. But as we can see from the experiments of Humphreys and Trotman (2011), even more training on the generic BSC does not eliminate typical BSC-related problems. Nørreklit *et al.* (2012) offer “pragmatic constructivism” as an alternative to this generic strategy map and point out that cause-and-effect relations in business are nothing like cause-and-effect in natural sciences. The laws of business are not universal and they cannot be “discovered” like the law of gravitation in physics. Instead, they need to be “constructed” by managers and employees. Each organization has distinct values, different resources and market segments, facts that lead to diverse possibilities and need to be communicated in the appropriate way. Managers need to integrate these four dimensions coherently into their performance management systems if they want to construct a reality in the organization that leads to success. And even if a BSC gets better by integrating a strategy map, its generic and simplistic “if-then-argumentations” might not fit the context of any given organization (Nørreklit *et al.*, 2012).

Overall, strategy maps seem to enhance the implementation of a strategy into a performance measurement system such as the BSC. But they need to be supported by dedicated and experienced managers who construct causality in the performance measurement system that is unit-specific, and not just copied from the generic BSC books.

Keywords:

Literature review,
Strategy map,
Balanced scorecard,
Integration,
Performance measurement system,
Construct causality,
Pragmatic constructivism,
Strategy implementation,
BSC

References

- Burkert, M. and Lueg, R. (2013), "Differences in the sophistication of value-based management – the role of top executives", *Management Accounting Research*, Vol. 24 No. 1, pp. 3-22.
- Cheng, M.M. and Humphreys, K.A. (2012), "The differential improvement effects of the strategy map and scorecard perspectives on managers' strategic judgments", *The Accounting Review*, Vol. 87 No. 3, pp. 899-924.
- Greatbanks, R. and Tapp, D. (2007), "The impact of Balanced Scorecards in a public sector environment: empirical evidence from Dunedin City Council, New Zealand", *International Journal of Operations & Production Management*, Vol. 27 No. 8, pp. 846-873.
- Humphreys, K.A. and Trotman, K.T. (2011), "The balanced scorecard: the effect of strategy information on performance evaluation judgments", *Journal of Management Accounting Research*, Vol. 23 No. 1, pp. 81-98.
- Kaplan, R.S. and Norton, D.P. (2004), *Strategy Maps: Converting Intangible Assets Into Tangible Outcomes*, Harvard Business Press, Boston, MA.
- Lueg, R. and Carvalho e Silva, A.L. (2013), "When one size does not fit all: a literature review on the modifications of the Balanced Scorecard", *Problems and Perspectives in Management*, Vol. 11 No. 3, pp. 86-94.
- Lueg, R. and Jakobsen, M. (2014), "Balanced scorecard and controllability at the level of middle managers – the case of unintended breaches", *Journal of Accounting and Organizational Change*, Vol. 10 No. 2.
- Lueg, R., Nedergaard, L. and Svendgaard, S. (2013), "The use of intellectual capital as a competitive tool: a Danish case study", *International Journal of Management*, Vol. 30 No. 2, pp. 217-231.
- Lueg, R. and Nørreklit, H. (2012), "Performance measurement systems – beyond generic strategic actions", in Mitchell, F., Nørreklit, H. and Jakobsen, M. (Eds), *The Routledge Companion to Cost Management*, Routledge, New York, NY, pp. 342-359.
- Luo, C.M.A., Chang, H.F. and Su, C.H. (2012), "Balanced scorecard as an operation-level strategic planning tool for service innovation", *The Service Industries Journal*, Vol. 32 No. 12, pp. 1937-1956.
- Malina, M.A. and Selto, F.H. (2001), "Communicating and controlling strategy: an empirical study of the effectiveness of the Balanced Scorecard", *Journal of Management Accounting Research*, Vol. 13 No. 1, pp. 47-90.
- Nørreklit, H., Nørreklit, L., Mitchell, F. and Bjørnenak, T. (2012), "The rise of the balanced scorecard – relevance regained?", *Journal of Accounting and Organizational Change*, Vol. 8 No. 4, pp. 490-510.
- Speckbacher, G., Bischof, J. and Pfeiffer, T. (2003), "A descriptive analysis on the implementation of Balanced Scorecards in German-speaking countries", *Management Accounting Research*, Vol. 14 No. 4, pp. 361-388.
- Tapinos, E., Dyson, R. and Meadows, M. (2010), "Does the balanced scorecard make a difference to the strategy development process?", *Journal of the Operational Research Society*, Vol. 62 No. 5, pp. 888-899.
- Taylor, W.B. (2010), "The balanced scorecard as a strategy-evaluation tool: the effects of implementation involvement and a causal-chain focus", *The Accounting Review*, Vol. 85 No. 3, pp. 1095-1117.

Corresponding author

Rainer Lueg can be contacted at: rlueg@asb.dk

For instructions on how to order reprints of this article, please visit our website:

www.emeraldgroupublishing.com/licensing/reprints.htm

Or contact us for further details: permissions@emeraldinsight.com