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## **Balanced Scorecard: Better Results with Business Analytics**

Putting intuition, gut feelings and guesswork aside to take strategy execution to the next level

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## Introduction

All organizations aspire to build and maintain a strong and profitable business model that sets them apart from their peers. But very few organizations are able to achieve a level of performance that outperforms everyone else in their industry. Contrary to popular perception, a membership among the club of high-performing organizations is not handed out by just hard work, but rather has to be earned through a carefully formulated and executed strategy.

An easy-to-understand and well-communicated strategy can enhance shareholder value. It can become a catalyst for better leadership; it can help create alignment of the managers' and employee teams' actions throughout the organization; and it can ultimately be the foundation for improving performance. But how do you supercharge your strategy to become a high-performing organization?

## Classic Strategy Formulation and Execution

One of the most common ways for those in boardrooms and executive teams to create or update their strategy is to take a fresh look at the organization's mission, values and vision, and use those as the foundation for updating the strategy. A strategy that the executive team believes in will take the organization in the desired direction and to the next performance level. The question the executives must answer is, "Where do we want to go?" Their primary role is to set direction.

Once the strategy is in place, management initiates a process wherein the organization's balanced scorecard and strategy map are updated with strategic themes, objectives, measures (KPIs, RIs, etc.), performance targets and expected cause-and-effect relationships. The role of these methodologies is to answer a different question: "How are we going to get there?"

Additionally, strategic projects and initiatives to support the execution should be derived and defined from each strategic objective in the strategy map. Then sufficient StratEX (strategic expenses) should be allocated. Strategy is all about change, and if the strategic projects are not funded, achieving the strategic objectives is unlikely. Ultimately, the strategy is cascaded down through the organization to ensure proper alignment responsibility and accountability across business units, support units and employees.

After the new or updated strategic plan is put to work, strategic performance is tracked by comparing the performance of measures and initiative progress indicators with assigned target levels. Measures without targets do not provide incentives or allow for accountability. For example, if a measure such as customer satisfaction falls below target, management might launch an initiative with the aim of getting customer satisfaction back on track.

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## The Challenge with Classic Strategy Formulation and Execution

Conceptually, there is nothing wrong with classic strategy formulation and execution, but what if there was a better way of doing it: a way that would enable organizations to better focus on what actually drives performance and understand the actual cause-and-effect relationships between various strategic measures; a way that would enable organizations to better utilize their scarce resources and get more out of their precious StratEX; a way that would assist an organization in becoming high-performing?

Many organizations have access to enormous amounts of data and often use it all to derive and track measures that are easy to obtain or perceived to drive organizational performance. The result is that a lot of noise is generated and little time is spent on understanding how or why the tracked measures support strategic outcomes or decision making – or whether they do at all.

To compound matters, strategy itself begins with a hypothesis, and many executives are often blinded by its eloquence. Collectively, this introduces the risk that scorecards and dashboards force employees to focus on initiatives that don't drive performance or tasks that in return drag down productivity and resource utilization; however, few organizations can prove it, let alone recognize that the issue exists.

Given this predicament, employees may waste time, act in isolation, resort to guesswork or instinct, and become unable to see or prove if a strategy is flawed. Management and executives get frustrated and question the organization's ability to move toward a fact-driven culture.

For the organization as a whole, this means suboptimal performance and the potential to pursue a flawed strategy for months or years longer than necessary – all at higher cost and risk.

If management does not understand the linkages, interdependencies and effects of what actually drives performance in their business, they are unable to correctly outline which measures to track and how they affect each other. It is therefore unlikely that management will know which strategic initiatives to fund in relation to how much they drive organizational performance.

For many organizations measures seldom change; however, as all organizations have witnessed lately, the economic environment does. Strategy is never static; it is dynamic. If the organization is unable to modify and adapt its strategy to a changing economic or competitive environment, it might be heading in the wrong direction or, as mentioned, pursue a flawed strategy for too long. The result is a focus on matters that do not drive performance or only add a small value to the overall goal of shareholder value creation.

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There are several common challenges with today's classic approach to strategy formulation and execution:

- Organizations track too many metrics and therefore fail to distinguish between urgent and important ones. This creates noise, robs employees of valuable time and provides little direction in terms of strategic priorities.
- Management teams use intuition or easy-to-find metrics instead of those that are statistically significant with regard to capturing what actually drives organizational performance.
- Without proper understanding of the actual cause-and-effect relationship between metrics (upstream and downstream), executives risk misidentifying the root cause of a problem or negatively affecting others once action is taken.
- Unable to accurately simulate or forecast future performance – without the context or statistically relevant metrics – organizations struggle to set realistic targets, miss objectives and reduce confidence in their management systems. This in turn drives a culture based on intuition instead of facts and makes it almost impossible to become a high-performing organization.

A CEO at a midsize bank recently said, "Incenting our financial advisers to sell credit cards and thus tracking 'percentage of new customers to whom the bank sold a credit card' used to be a good KPI. Now that the worst credit crisis in decades is upon us, it is a bad KPI. The more credit cards we sell, the higher we drive our bad debt. Any bank or credit union can sell a credit card during a credit crisis, so why should we continue to incent our staff to collect all the high-risk debt?"

As seen in the example above, what once was a good measure (percentage of new customers to whom the bank sold a credit card) can become a bad measure. This is true especially if the bank does enforce stricter credit qualification and pricing policies as well as adjust the measures target to take into account the smaller percentage of the population to whom the bank, during an economic downturn, wishes to sell a credit card. Hence the perception by management that, without any adjustments to policies or overall target setting, a measure that had a positive effect on branch performance has turned to negative.

The question that arises from the above example is whether the bank could have been alerted in any way to the fact that the perceived isolated cause-and-effect relationship (between incenting staff to sell credit cards and branch performance) had turned sour.

Not only that, but could boardrooms and executive teams in general have had methodologies supported by software technology at their disposal to add intelligence to their strategy formulation and execution; and, would these resources allow them not to perceive anything, but rather make fact-based decisions on relevant performance-driving measures and cause-and-effect relationships, then allocate StratEX to those initiatives that drive the most value?

The answer is yes; it is called the intelligent balanced scorecard.

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- No organization operates in a vacuum, and therefore the balanced scorecard must continuously be updated to suit the current economic and competitive environment.
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## **The Intelligent Balanced Scorecard**

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Strategy formulation and execution is not just about finding one set of measures that can be tracked in order to ensure the organization is moving in the right direction by improving its strategic objectives. Nor is achieving a strategy about once and for all determining the cause-and-effect relationship between them.

Strategy formulation and execution is about setting bold yet achievable goals and continuously monitoring and fine-tuning a set of relevant measures that drive performance. It is about understanding what strategic projects and initiatives to fund to boost performance further. No organization operates in a vacuum, and therefore the balanced scorecard must continuously be updated to suit the current economic and competitive environment.

By applying correlation techniques to the traditional balanced scorecard, management will be able to better understand how strongly the defined objectives relate to each other and how well the defined measures drive performance. For example, if three influencing measures improve 10 percent, 20 percent and 25 percent, and the influenced measure improves 12 percent, what can be learned about the explanatory effect of those three measures? If one explained the dominant impact, should there be more financial investment in its associated processes or supporting initiatives? If a different potential influencing measure believed by some to be better was substituted, would the correlation increase? With correlation techniques, management can study the effectiveness of its strategy execution not that differently than if the organization was a laboratory.

In addition to correlation techniques, the balanced scorecard can be further enhanced by leveraging statistical time series forecasting. The aim is to understand how performance-driving measures are expected to perform in the future. This allows for various what-if analyses that can be used to optimize the funding of StratEX levels across initiatives and thus maximize the return on StratEX.

## Example

Let's look at a simplified example of how to apply intelligence to the traditional balanced scorecard in a financial services organization.

The organization has defined four strategic objectives as shown in the Figure 1. In addition to that, the performance of each objective is tracked by two measures, such as "customer satisfaction" (customer perspective) and "human capital readiness" (learning and growth perspective).

Strategy Map (Customer Relationship Management Theme)	Intelligent Balanced Scorecard		Action Plan	
	Measure	Target	Initiative	Budget
	- Measure 1	+12%	Result indicators - not supported by initiatives Result indicators - not supported by initiatives	
	- Measure 2	+10%		
	- Customer satisfaction	92%	- Satisfaction survey - Initiative 1	€XXX
	- Measure 3	60%		€XXX
	- Measure 4	2.8	- Initiative 2 - Initiative 3	€XXX
	- Measure 5	3.2		€XXX
	- Human capital readiness	100%	- Relationship training - Initiative 4	€XXX
	- Measure 6	100%		€XXX

Figure 1. A sample financial services organization's strategic objectives, measures and initiatives.

By calculating the correlation between the defined measures, executives are able to understand to what extent human capital readiness drives customer satisfaction. If the correlation between the two measures is above zero, it means that an increase in human capital readiness leads to an increase in customer satisfaction. The strength of the correlations determines by how much.

When it is understood to what extent an improvement in human capital readiness drives customer satisfaction, management is able to determine how much StratEX is to be allocated (or invested) to initiatives driving human capital readiness and thereby improving customer satisfaction.

By applying correlation and statistical time series forecasting techniques to the balanced scorecard, management is better able to:

- Understand to what extent influencing measures drive performance of influenced measures. This way management can validate the intuitive and perceived cause-and-effect relationship between strategic objectives with empirical evidence.
- Perform what-if scenario analysis by leveraging its new understanding of how objectives, initiatives, processes and the associated measures drive performance today and how they are expected to drive performance in the future.
- Award StratEX to initiatives that are expected to contribute the most to the organization's performance. Hence, management can focus on what actually drives performance versus what is perceived to drive performance.

By using an intelligent balanced scorecard, management is able to perform what-if scenarios by leveraging its new understanding of how objectives, initiatives, processes and the associated measures drive performance today and how they are expected to drive performance in the future.

- Communicate results using the best attributes of all dashboards and scorecards – alerts, tables, gauges, dials and charts to focus attention on what is important.
- Provide context and alignment using the best attributes of strategic scorecards – strategy maps, cascade management and linkage to initiatives.

Applying correlation and statistical time series forecasting techniques to the balanced scorecard not only helps an organization validate its strategy but also lays the foundation for how it can be aligned with a changing environment.

As a result, management should always be one step ahead of the competition as noise is reduced and the focus is on simplified decision making through proven facts that are relevant in context, delivered to the right employees at the right time.

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## **Conclusion**

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By applying business analytics to the balanced scorecard, perceived measures and cause-and-effect relationships are no longer just a perception but are validated with evidence. This gives management the advantage of continuously being able to adapt to a changing environment.

The ability to adapt comes from replacing questionable measures with more effective and higher-impact ones, reprioritizing precious StratEX to projects and initiatives that support measures with a higher correlation to measures they are supposed to improve. The result is a fact-based approach to strategy execution.

Understanding how things relate today and how they are expected to do in the future will answer questions such as why certain measures are more relevant, contributing or explanatory than others and which areas of the business different measures affect – and by how much.

The time has come to put the old habits of intuition, gut feelings and guesswork aside and take strategy execution to the next level.

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■ Once management has determined what actually drives performance, questions such as what it takes to improve results, achieve targets and where to focus can be intelligently answered.

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## About SAS

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SAS is the leader in [business analytics](#) software and services, and the largest independent vendor in the business intelligence market. Through innovative solutions delivered within an integrated framework, SAS helps customers at more than 45,000 sites improve performance and deliver value by making better decisions faster. Since 1976 SAS has been giving customers around the world THE POWER TO KNOW®



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