The strategy map: guide to aligning intangible assets

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An organization’s strategy describes how it intends to create value for its shareholders, customers, and citizens. All organizations today create sustainable value from leveraging their intangible assets — human capital; databases and information systems; responsive, high-quality processes; customer relationships and brands; innovation capabilities; and culture. Because an organization’s intangible assets may easily represent more than 75 percent of its value, then its strategy formulation and execution need to explicitly address their mobilization and alignment.

The balanced scorecard, introduced more than a decade ago as a performance measuring system to quantify intangible assets, offers a framework for describing strategies for creating value from both tangible and intangible assets. The BSC framework has several important elements:

- Financial performance, a lag indicator, provides the ultimate definition of an organization’s success. Strategy describes how an organization intends to create sustainable growth in shareholder value.
- Success with targeted customers provides a principal component for improved financial performance. In addition to measuring the lagging outcome indicators of customer success, such as satisfaction, retention, and growth, the customer perspective defines the value proposition for targeted customer segments. Choosing the customer value proposition is the central element of strategy.
- Internal processes create and deliver the value proposition for customers. The performance of internal processes is a leading indicator of subsequent improvements in customer and financial outcomes.
- Intangible assets are the ultimate source of sustainable value creation. Learning and growth objectives describe how the people, technology, and organization climate combine to support the strategy. Improvements in learning and growth measures are lead indicators for internal process, customer, and financial performance.

The balanced scorecard provides a language that executive teams can use to discuss the direction and priorities of their enterprises. They can view their strategic measures, not as performance indicators in four independent perspectives, but as a series of cause-and-effect linkages among objectives in the four balanced scorecard perspectives.

Without a comprehensive description of a strategy, executives cannot easily communicate the strategy among themselves or to their employees. Without a shared understanding of the
Creating value from intangible assets follows four principles

1. Value creation is indirect – improvements in intangible assets affect financial outcomes through chains of cause-and-effect relationships. For example, employee training in total quality management (TQM) and six sigma techniques can directly improve process quality. Such improvement can then be expected to lead to improved customer satisfaction, which, in turn, should increase customer loyalty.

2. Value is contextual – the value of an intangible asset depends on its alignment with the strategy. For example, training employees in TQM and six sigma techniques has greater value for organizations following a low total cost strategy than for one following a product leadership and innovation strategy.

3. Value is potential – intangible assets, like employees trained in statistical quality control and root cause analysis, have potential value but not market value. Internal processes such as design, production, delivery, and customer service are required to transform the potential value of intangible assets into tangible value. If the internal processes are not directed at the customer value proposition or financial improvements, then the potential value of employee capabilities, and intangible assets in general, will not be realized.

4. Assets are bundled – the value from intangible assets arises when they are combined effectively with other assets, both tangible and intangible. For example, quality training is enhanced when employees have access to timely, detailed data from process-oriented information systems. Maximum value is created when all the organization’s intangible assets are aligned with each other, with the organization’s tangible assets, and with the strategy.

strategy, executives cannot create alignment around it. And, without alignment, executives cannot implement their new strategies for the changed environment of global competition, deregulation, customer sovereignty, advanced technology, and competitive advantage derived from intangible assets, principally human and information capital.

Strategy maps: describing how the organization creates value

To facilitate discussions among executives about the linkages in the four balanced scorecard perspectives we use a general representation that we call a strategy map. In our experience, the strategy map, a visual representation of the linked components of an organization’s strategy, is as big an insight to executives as the balanced scorecard itself.

The strategy map template described in Exhibit 1 can serve as a checklist. If a company’s strategy is missing an element on the strategy map template, its strategy is likely flawed. As examples of crucial missing elements, we frequently find that organizations have no connection between internal process measures and a customer value proposition, no objectives for innovation, and only vague objectives for employee skills and motivation and for the role of information technology.

The strategy map is based on five principles

1. **Strategy balances contradictory forces.** Investing in intangible assets for long-term revenue growth usually conflicts with cutting costs for short-term financial performance. The dominant objective for private-sector organizations is the creation of sustained growth in shareholder value. This implies a commitment to the long-term. At the same time, the organization must show improved results in the short-term. Short-term results can always be achieved by sacrificing long-term investments, frequently in an invisible way. Thus, the
starting point in describing the strategy is to balance and articulate the short-term financial objective for cost reduction and productivity improvements with the long-term objective for profitable revenue growth.

(2) **Strategy is based on a differentiated customer value proposition.** Satisfying customers is the source of sustainable value creation. Strategy requires a clear articulation of targeted customer segments and the value proposition required to attract and retain targeted customers. Clarity of this value proposition is the single most important dimension of strategy.

(3) **Value is created through internal business processes.** The financial and customer perspectives in strategy maps and balanced scorecards describe outcomes the organization hopes to achieve: increases in shareholder value through revenue growth and productivity improvements; increases in company’s share of customers’ spending through customer acquisition, satisfaction, retention, loyalty, and growth. Processes in the internal and learning and growth perspectives drive the strategy; they describe how the organization will implement its strategy. Effective and aligned internal processes determine how value gets created and sustained. Companies must focus on the critical few internal processes that deliver the differentiating value proposition and that are most critical for enhancing productivity and maintaining the organization’s franchise to operate. We classify internal processes into four clusters:

- operations management – producing and delivering products and services to customers;
- customer management – establishing and leveraging relationships with customers;
- innovation – developing new products, services, processes, and relationships; and
- regulatory and social – meeting or exceeding regulatory and societal expectations, and building stronger communities.
Each of these clusters can have literally hundreds of sub processes that create value in some way. Executives practicing the art of strategy must identify the critical few processes that are the most important for creating and delivering the differentiating customer value proposition. We refer to these critical few processes as the strategic themes.

(4) **Strategy consists of simultaneous, complementary themes.** Each cluster of internal processes delivers benefits at different points in time. Improvements in operational processes generally deliver short-term results through cost savings and quality enhancements. Benefits from an enhanced customer relationship start to phase in six months to one year after the initial improvement in customer management processes. Innovation processes generally take even longer to produce higher customer revenues and operating margins, and the benefits from enhanced regulatory and social processes can occur further in the future as companies avoid litigation and enhance their reputations in the community. Strategies should be balanced, incorporating at least one strategic theme from each of the four internal clusters. By having strategic themes for enhancing processes in all four internal clusters, the organization realizes benefits that phase in over time, generating sustainable growth in shareholder value.

(5) **Strategic alignment determines the value of intangible assets.** The fourth perspective of the balanced scorecard strategy map, learning and growth, describes the organization’s intangible assets and their role in the strategy. Intangible assets can be classified into three categories:

- **Human capital:** strategic competencies – the availability of skills, talent, and know-how to perform activities required by the strategy.
- **Information capital:** strategic information – the availability of information systems and knowledge applications and infrastructure required to support the strategy.
- **Organization capital:** culture – awareness and internalization of the shared mission, vision, and values needed to execute the strategy; leadership – the availability of qualified leaders at all levels to mobilize the organizations toward their strategies; alignment – alignment of goals and incentives with the strategy at all organization levels; teamwork – the sharing of knowledge and staff assets with strategic potential.

Aligning and integrating intangible assets with enterprise strategy

Alignment: the intangible assets must be aligned with the strategy in order to create value. Intangible assets take on value only in the context of strategy – that is, what they are expected to help the organization accomplish. For example, assume an organization wants to invest in staff training. Assume further that it has two choices – a training program on total quality management (TQM) or a program on customer relationship management (CRM). Which program has the greatest value? Clearly the answer to this question depends on the organization’s strategy. A company following a low total cost strategy, such as Dell and McDonald’s, that needs to continually improve its operating processes would get higher value from TQM training. A company such as Goldman Sachs or IBM Global Solutions, however, that follows a total customer solution strategy, would benefit most from CRM training. The same investment in training creates dramatically higher returns when it is aligned with the organization’s strategy. Strategic alignment is the dominant principle in creating value from intangible assets.

Integration: integration is required to support the enhancement of all the organization’s intangible assets. When an organization groups its activities around functions, such as HR and IT, it often creates silos of specialization. HR and IT investments must be integrated if the organization is to realize their full potential benefits.

Together, alignment and integration provide the conceptual building blocks for developing objectives for human capital, information capital, and organization capital in the learning and growth perspective. Few organizations, however, exploit the potential competitive advantages from aligning and integrating their intangible assets. We conducted two surveys of HR and IT executives, to better understand their approaches to strategic alignment. Only one-third of the
organizations reported strong alignment of HR and IT priorities with enterprise strategy. Why the misalignment? Fundamental management processes designed to create alignment were not being used as intended. Few HR and IT organizations integrated planning with strategy, assigned relationship managers, or linked budgets to strategy.

Executives align and integrate their intangible assets in a three-part process:

1. **Describe intangible assets.** Intangible assets have been described as “knowledge that exists in an organization to create differential advantage” and “the capabilities of the company’s employees to satisfy customer needs”. Intangible assets encompass such diverse items as patents, copyrights, workforce knowledge, leadership, information systems, and work processes.

2. **Align and integrate intangible assets.** The strategy map promotes alignment and integration by providing a common point of reference for the enterprise strategy. The internal perspective of the map identifies the critical few processes that create desired outcomes for customers and shareholders. The intangible assets must be aligned to these value-creating internal processes. We use three alignment techniques to establish a bridge between the strategy map and intangible assets.
   - Strategic job families – for each strategic process, one or two job families will have the greatest impact on the strategy. By identifying these job families, defining their competencies, and ensuring their development, we can accelerate strategic results.
   - Strategic IT portfolio – for each strategic process, specific IT systems and infrastructure support implementation. These systems represent a portfolio of technology investments that should receive priority in funding and other resources.
   - Organization change agenda – the strategy requires changes in cultural values, both internally focused (for example, teamwork) as well as external (for example, customer focus). An agenda of cultural change, derived from the strategy, helps shape the development of the new culture and climate.

3. **Measure intangible assets.** To measure intangible assets, we can learn from the principles used in a company’s balance sheet to measure the organization’s tangible and financial assets. Accountants organize the asset side of the balance sheet by categories, such as cash, accounts receivable, inventory, property, plant, and equipment, and long-term investments. Assets are ordered hierarchically, by their degree of liquidity, the ease with which the asset can be converted to cash. Accounts receivable is more liquid (quicker conversion to cash) than inventory, and both accounts receivable and inventory are classified as short-term assets since they typically convert to cash within 12 months. Long-term assets, as their name suggests, take longer to return the amount invested in them back to cash. For example, property, plant, and equipment (PP&E) provide a capability for converting raw materials to finished goods inventory, which gets sold, becomes accounts receivable and, eventually, cash. But many cycles of such conversion are required before the initial investment in PP&E is recovered.

The strategy map framework enables human, information, and organization capital to be represented as assets that eventually get converted into cash, the ultimate liquid asset, through higher sales and lower spending. The concept of strategic readiness describes the status of intangible assets to support the organization’s strategy. Strategic readiness is analogous to liquidity – the higher the state of readiness, the faster intangible assets contribute to generating cash.

Strategic readiness gets converted into tangible value only when internal processes create increased levels of revenue and profit. An organization cannot possibly assign a meaningful financial value to an intangible factor like a “motivated and prepared workforce” because tangible value can be derived only in the context of the strategy. It is possible from the financial perspective of the strategy map to state that successful execution of the strategy is worth some amount in revenue growth and another amount in shareholder value. A workforce that has achieved satisfactory levels of strategic readiness is one, but only one, of the factors that enable
such revenue growth or shareholder value creation to be achieved. Thus, the readiness of the human capital intangible asset is a necessary but not sufficient condition for strategic success.

When all three components in the learning and growth perspective – human, information, and organization capital – are aligned with the strategy, the entity has a high degree of organization readiness: it has the ability to mobilize and sustain the process of change required to execute its strategy. Organizational readiness is high when:

- human capital capabilities in strategic job families are aligned closely to the strategic themes;
- information capital provides the vital infrastructure and strategic IT applications that complement the human capital for promoting outstanding performance in the strategic themes; and
- culture, leadership, alignment, and teamwork reinforce the changes in organization climate required to execute the strategy.

Case Study: Crown Castle International, Inc.

Background

Crown Castle International is a leading global provider of shared wireless communications and broadcast infrastructure. It rents towers, leases antenna space, and provides broadcast transmission service and related services to a “who’s who” of wireless providers and broadcasters, including British Telecom, Verizon, Cingular, Vodafone, T Mobile (Deutsche Telekom), and the British Broadcasting Service (BBC), for whom the company provides full television transmission services. Crown Castle serves more than two-thirds of the US markets and more than 90 percent of the British and Australian populations. Total revenues for 2002 were $901.5 million.

The situation

Crown Castle’s growth paralleled the wireless digital boom of the mid-1990s; from 127 towers and 700 employees in 1995, the company today has grown to more than 15,000 towers and 2,000 employees. When Crown Castle went public in 1998, its strategy was simple: an intensified “land grab”. By acquiring strategically located towers for lease and offering outsourced services, the company could help its telecom customers achieve speed to market. Once it met its fixed costs, revenues would become pure cash flow. Early on, this formula produced successful results; but when the capital markets began to tighten and the predicted 75 percent margins didn’t materialize, the executive team realized that the growth-through-acquisitions strategy had run its course.

The strategy

In June 2001, Crown Castle rolled out a new strategy – operational excellence – along with its balanced scorecard initiative. The company now sought to maximize return on existing assets, realize greater efficiencies, and reap economies of scale by offering such value-added services as equipment maintenance. John Kelly, who became CEO in August 2001, led the company through its transformation, fully aware that in an industry as fluid as telecommunications, Crown Castle would have to adapt its strategy, and thus its scorecard, periodically. In 2002, the company decentralized its management structure to produce more detailed data and knowledge about its core assets, transmission towers. The increased knowledge would be the key to achieving operational excellence across three continents.

Strategy map

Though operational excellence was present in Crown Castle’s initial strategy map, the map still represented its former acquisitions strategy. By early 2003, the company had revised the map, with input from district-level employees, to better reflect its operational excellence strategy and new, decentralized approach. The team sharpened objectives in the internal perspective, cleansed the map of vague “corporate-speak”, and reconfigured cause-and-effect relationships. The result: a more granular, unambiguous strategy map that would guide Crown Castle’s far-flung workforce in executing strategy (see Exhibit 2).
Financial perspective

Crown Castle would achieve revenue growth through two objectives aimed at boosting returns from existing assets: increase recurring revenue, the annuity income from leases, and increase installation margin, a source of higher-margin revenue. On the productivity side, the company sharpened its asset utilization objective to reduce accounts receivable (A/R), unbilled revenue, and work-in-progress (WIP).

Customer perspective

Crown Castle has two types of customers: wireless operators and broadcasters. Anticipating no new customer segments and few new marketplace entrants, the company identified partnership as its customer value proposition. “If the customer has to roll out 1,000 sites this year, they want to know they have a business partner with the right infrastructure and time-to-market capability”, notes Robert Paladino, senior vice president of global performance. Customer research revealed that speed to market should replace an earlier objective, good to do business with. Quality, another added objective, referred not only to the general concept but also to regulatory compliance (for example, number of on-time minutes of transmitter time). For the BBC, its primary broadcast customer, the objective for fulfilling customer needs became meet site license agreements (SLA) requirements.

Operations (internal process) perspective

“By knowing our assets better and making better process improvements, we can better serve our customers”, says Paladino, explaining the crux of the company’s operational excellence strategy and the rationale for this perspective’s supporting theme, customer partnership. Increase understanding of assets was a foundation of the new strategy. The company could better serve its customers and maximize tower performance by having more and better data about its towers, such as available space, engineering specifications, and customer usage. Several objectives within this perspective were modified from high-level statements (such as establish/improve core capabilities and support processes to maximize efficiencies) to more
actionable objectives, such as resolve NOTAMS (trouble tickets) in a timely way. Paladino noted “selected, specific processes we must measure are now on the strategy map”. This heightened specificity helped to standardize operational procedures throughout the company, making the strategy map more useful to district managers.

**Learning and growth perspective**

In its theme, emulate *Fortune* magazine’s “100 best companies to work for”, Crown Castle sought to create a superior working environment for its employees. Most notable of the learning and growth objectives was the central objective to improve global knowledge management. Early in 2003, Crown Castle made a giant stride by launching a knowledge management system that would become a repository of best practices and performance standards for key processes. It delineated processes, such as site inspections, at the task level through video clips and documentation. The knowledge management system was a direct outcome of Crown Castle’s BSC. Paladino stated “we moved from getting data, to understanding information, to gaining knowledge that we could act upon”. Supporting the entire learning and growth perspective was the information systems and services objective; instead of focusing solely on the latest e-business system, the company now gave equal weight to the service and solution aspects of enabling technologies.

**Results**

Paladino credits Crown Castle’s scorecard and strategy map with helping the company thrive in a market environment so punishing that two of its four competitors declared bankruptcy. Indeed, its aggressive management of expenses and capital – the essence of its productivity strategy – propelled cash flow from negative to positive, representing improvements of several hundred million dollars. These financial gains have allowed Crown Castle to undertake major initiatives with confidence: fulfilling the UK government’s mandate to convert television transmission to digital; and establishing Freeview, a joint venture providing free digital television with 30 new channels throughout the UK.

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