

Sometimes You Need a Macroscope

Whether for a startup or established firm, business models that take a macroscopic view can lead to a shared understanding and vision of the company's operations and direction.

Business models are simple representations of complex realities. Whether it's a process model, motivation model, organizational structure model, rule model, or some other type, simplification typically is achieved by focusing on a few dimensions of a complex whole. Analytical in nature, these models probe the depths of a problem or focus on a few specific dimensions of a problem. Essentially, they work like microscopes or spectroscopes.

But sometimes a different approach is needed. In 1979, molecular biologist Joël de Rosnay introduced the concept of the macroscope, which “filters details and amplifies that which links things together. It is not used to make things larger or smaller but to observe what is at once too great, too slow, and too complex for our eyes....Now a new tool is needed by all those who would try to understand and direct effectively their action in this world.”

In his simple and elegant book, *The Macroscope*, de Rosnay details

critical differences between an analytical approach (symbolized by a microscope) and a systemic approach (symbolized by a macroscope). He suggests that a highly complex system composed of diverse elements linked by strong interactions should be viewed in its totality and its dynamics studied. By using a macroscope model (i.e., a systemic approach), it's possible to modify groups of variables simultaneously and validate facts by comparing the behavior of the model with reality. For businesses, macroscopic models can be very useful from a practical point of view for decision making and timely action.

A Model for a Startup

Nowhere is the dichotomy between analytical and systemic approaches more problematic than early-stage startup companies. Time is critical, and most resources are limited. A winning formula involves making good decisions that benefit the whole in a highly dynamic environment. One relatively new tool that helps entrepreneurs focus on that winning formula by using a macroscopic approach is Alexander Osterwalder's Business Model Canvas (BMC).

The BMC is a large visual chart with elements that describe a firm's value proposition, customers, customer relationships, key partners, resources, key activities, logistics, and finances. Elements and ideas can be added to the canvas with Post-it® Notes or even sketches. The BMC isn't a theoretical tool—it's a practical one. Released under a creative commons license, it's free to use. (See <http://businessmodelgeneration.com> for more information.)

The BMC is widely used as a core tool in the Lean Startup Method promoted by serial entrepreneur and Stanford University professor Steve Blank. The essence of the Lean Startup Method is outlined in *The Startup Owner's Manual* by Blank and Bob Dorf. Instead of a traditional business plan, Blank suggests a nimble approach using the BMC to structure a customer-focused model of the startup company. As the iterative Lean Startup Method progresses, the business model is refined and frequently tested against the market reality. Failure in this process is viewed as a learning experience. In due course, a practical business model of the entrepreneurial venture emerges, and the final BMC is structured around a



set of proven hypotheses. What initially begin as guesses eventually become facts.

Perhaps the most important idea behind using the BMC for a startup is that it leads to a shared ontology—in other words, a shared understanding of the description of the firm as well as the concepts and relationships involved—and a shared visual context. What's missing is the physical business. By taking the BMC and adding the Lean Startup Method, a viable business is born.

Use in Established Firms

A BMC-style macroscope can also be a valuable tool for companies beyond the startup stage. In Osterwalder's original thesis, published in 2004, he outlines the various ways business models help an established firm:

“Understanding and sharing the business logic of a firm.” By using a team approach to prepare the BMC, the immediate benefit is a shared visual context and shared understanding among team members. Basically, the viable business is used to develop a shared BMC-style macroscope that's useful for subsequent communication, analysis, and management action.

“Analysing the business logic of a company.” Osterwalder writes that models can improve “measuring, observing, and comparing” the business logic of a company. For established firms, I suggest using the standard BMC as a starting point to prepare a unique BMC (UBMC) based on the firm's existing business logic. From there, it's a relatively simple matter to tag

BMC elements with textual data, numeric metrics, or simplistic graphical representations of metrics such as sparklines. (For more information on using sparklines, see Edward Tufte's work at www.edwardtufte.com/bboard/q-and-a-fetch-msg?msg_id=0001OR.) The beauty of this type of “sticky note” management accounting is its simplicity. It can easily be used to place financial and nonfinancial measures in a shared visual context or even be changed based on circumstances.

A UBMC-style macroscope can also be used as a management accounting discovery tool to:

- ◆ Deal with shifting throughput constraints and appropriate capacity utilization levels,
- ◆ Search for predictive financial indicators,
- ◆ Sort through complex target costing/pricing decisions,
- ◆ Add balance to unbalanced incentive systems, and, perhaps,
- ◆ Value intangible assets (at least from an internal perspective).

“Improving the management of the business logic.” Osterwalder notes that models help companies react faster to changing circumstances. For example, the UBMC-style macroscope also can be used as a shared and jointly prepared crystal ball. I refer to this as generating a 2B-BMC (a forecasted picture of a firm's UBMC), which is similar to the methodology Steve Blank proposes for startups.

Without a tool like the UBMC, this process can devolve into a linear one: The marketing plan drives the manufacturing plan, which drives the financial plan. For firms

defined by stable processes, a linear planning process can work fine—until a tipping point is encountered or an entrepreneurial opportunity presents itself. Then a different planning process, such as the 2B-BMC, is needed.

“Foster innovation and increase readiness for the future.” The UBMC-style macroscope shouldn't be constrained by traditional firm boundaries. Based on circumstances, it can be focused. Sometimes it may be appropriate to widen the perspective to include a logistic network spanning key activities performed by key partners beyond the traditional boundaries of a firm. In other cases, the UBMC-style macroscope can focus on a particular slice of a broader business.

A Shared Vision

The attractiveness of the UBMC-style macroscope is its simplicity and the ability to coalesce diverse ideas into a shared vision. As de Rosnay wrote in 1979, “Each one of us can see things in perspective. We must learn to look through the macroscope to apply systemic rules, to construct more rigorous mental models, and perhaps to master the play of interdependencies.” **SF**

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