

Objective Outcomes

Nonprofits as economic systems

Economists like to make assumptions about a firm's objectives and behavior to help develop economic models. For example, the standard "theory of the firm" assumes that a firm's objective is to maximize profit (or perhaps owner's wealth). The firm's managers behave "rationally" to attain that objective, using a stable "production function" to turn inputs into outputs.

Those assumptions, with information on market demand and resource prices, let economists determine the level of output that will generate the most profit. The organization's production function is viewed as a sealed "black box," unlikely to change.

In such a limited view, managers' only important decisions become how many units to produce, and what price to charge.

This model of organization has the virtue of being very simple. Yet, it's clearly incomplete. This view has competition from other big-picture mental models for organizations. Some are more descriptive and figurative, others are literal. For example, Gareth Morgan's "Images of Organizations" (1986) suggests how organizations can be seen as machines, or as organisms, brains, cultures, or political systems, or a few other things.

Economists don't often use those metaphors, but they may use another powerful yet literal image: an organization is a system. As systems, organizations seek resources as inputs, change the inputs in some ways, and create outputs - just what a stereo receiver does to a sound signal, a car to gasoline, and a human to oxygen and food.

In a systems view, organizations aren't sealed black boxes: they're open to, and interact with, their environments, and always acquire new properties to adapt. The resources are outside of the organization's control, and its outputs may change the resource environment.

But the economic decisions an organization makes are a way of linking inputs and outputs. Systems thinking in general can be a powerful organizing proposition for many kinds of organizations. Here's how a systems approach can help nonprofit leaders and managers.

Systems theory was fairly influential in organizational studies in the 1960s and 1970s. It came from a physical science discipline - biology - but was quickly acknowledged by social science disciplines like organizational studies and economics. Like organisms, organizational systems are made up of subsystems, like programs or departments, linked to each other to make up the whole. In time, they connect not only forward (inputs through transformation process to outputs), but also through feedback loops (output affects environment affects the next round of inputs).

These are relationships that economics can describe effectively. So let's apply this to nonprofits, and develop some economic intuition to help managers. At its core, any system model has some key components: inputs, transformation process, outputs, and some feedback. We'll look at each in turn.

Inputs

Think of three different kinds of nonprofits - human service, performing arts, and policy advocacy. They all need to combine inputs, for example, the "factors of production" from classical economics: land, labor and capital (now supplemented by a factor of ideas, entrepreneurship, and/or innovation).

The transformation process and the desired outputs define some of the inputs. Take "land" as a factor of production, some physical space. For performing organizations, a stage and audience space are critical land inputs. A counseling organization needs private areas for sessions. An advocacy organization's space needs may be defined more by location (i.e., access to government) than architecture. In short, they all need a place to work.

Like most nonprofits, they need many kinds of human capital: paid staff and volunteers, providing skilled and/or unskilled help, in leadership and/or service roles. Capital resources include physical equipment and a place used to deliver service.

Most of these inputs are purchased with money, obtained from service fees and philanthropy, private and public funding. Over an organization's lifespan, one or another kind of input can be the critical key to survival. But over time, for service systems, human capital is probably the most critical (i.e., valuable) need.

Each different input that fuels the transformation process comes from a different market. When it's hard to find highly-qualified volunteer trustees, that implies a scarce resource requiring more efforts to obtain (a higher "price"). But in another market where nonprofits have to purchase, land costs may be low - a donated hall for a concert.

Often, input markets are competitive, so nonprofits can't influence what they pay - they're price takers. In general, the environment includes both so-called "exogenous" factors - they can't be changed by any one buyer - and factors that an organization can control.

For example, most nonprofits can't control the size of the pool of prospective volunteers. But effective nonprofits create community legitimacy and good reputations to attract them - which is just like lowering the price of attracting volunteers.

A transformation process is how a

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system converts inputs to outputs through some production activity. Production activities are more internal to an organization, more within its control.

Most managers think not of "transformation processes," but of subsystems, like departments or programs. Some subsystems serve the public, some support the organization.

Consider three other nonprofits that use inputs: art museums, conservation groups, and higher education. They have fairly unique program subsystems that do curatorial, remediation, and curriculum work to serve the public. But they also share some common support subsystems: human resources, accounting, information technology, finance, logistics. Whether for mission or support, all these subsystems rely on the inputs - because that's what's available.

For systems to work effectively, they should be efficient, running with minimum friction. Friction is anything that fruitlessly consumes inputs before they deliver their inherent promise. Economists define efficiency as the inputs needed for a given level of output (rehearsals per concert, therapy hours per patient), kept to a minimum.

A nonprofit system's strategy may be to address the needs stated in its mission, while its manager's objective may be to find the best resources and use them in the best (most efficient) way.

Outputs

Every organization delivers specific products or (for most nonprofits) services. They seek change in clients or society in general, by producing concerts, campaigning for change, or planting trees. Outputs are measurable, visible uses of inputs as transformed by the process.

This space does not allow a full discussion of program and service outputs, but the kind of organization often defines the outputs and/or services; consider the six examples nonprofits. Their different services are from their strategy, which is how economists analyze competition between organizations.

What is key is that just like the input side of the system, the output side faces the external environment, of a target market of clients or of a large slice of society.

Systems thinking for nonprofit managers

Systems thinking is not just a quaint tool for scholars. It can help nonprofit managers and leaders, by emphasizing the relationships between inputs, transformation, output, and feedback.

Managers who make decisions about services and delivery over time, affect environments for the next round of inputs. If inputs create outputs within the system, then, future inputs depend on current outputs, for better or worse. Beyond a nonprofit's specific delivered outputs are outcomes experienced by clients, and broader impact on communities - which also affect a nonprofit's future.

Remember that inputs, transformation processes, demand for outputs, durability of outcomes, and impacts also respond to environmental change outside an organization's control. In a sense, managers have to think backward as well as forward. When they think in terms of broad organizational systems, not just service departments, when they think about resources as they plan outputs, when they efficiently manage their resources, they are managing systemically.

This is because sound economic decision-making is forward-looking. For any given input that becomes available, the question managers should ask is: how can my organizational system produce value from that new resource at the margin.

What advantage stems from a prospective volunteer's unique skills, or a building's special characteristics?

How can that input be effectively used to generate output that is worth (in mission or financial terms) more than the resources expended to obtain it - i.e., it has a marginal benefit net of all costs.

This kind of virtuous cycle of continually increasing benefit at the margin is what validates the idea of nonprofits as continuous, dynamic systems.