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A SYSTEMS APPROACH TO EVALUATION METRICS: A CASE STUDY OF SALVATION FARMS

Julia Davenport Scheier

PIM 74

A capstone paper submitted in partial fulfillment of the requirements for a Masters of Arts in Sustainable Development at SIT Graduate Institute in Brattleboro, Vermont, USA.

August 15th, 2016

Advisor: Nikoi Kote-Nikoi

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Student name: Julia Davenport Scheier
Date: August 15th, 2016

I would like to thank the Salvation Farms team for their comradery and profound encouragement over the past year.

It has been a remarkable journey.

I would also like to thank the deeply inspiring teaching of Dr. Nikoi Kote-Nikoi and Dr. S. Aqeel Tirmizi, who transformed my experience at SIT.

I will think of you often in my future endeavors.

Table of Contents

Abstract

This paper examines how integrating systems thinking into nonprofit work and evaluation metrics can help to advance an organization's mission and clarify that mission to the public. The researcher will utilize her practicum site at Salvation Farms, a small nonprofit in northern Vermont, as a case study to observe the extent to which this organization utilizes systems thinking and how current evaluation metrics can be improved to more effectively inform and involve the community. Salvation Farms' mission, after all, is to build greater resilience into Vermont's food system through agricultural surplus management.

The researcher offers a literature review on systems thinking and performance measurement and analyzes the results of a mixed methods evaluation of 8 participants through interviews, surveys, and focus groups to answer the research question: *to what extent can systems thinking and approaches help redesign performance measurement at Salvation Farms and ultimately help to clarify its mission to the public?*

Initial findings indicate that while Salvation Farms is growing its programs and community presence, there is still only a superficial understanding of its work, both by those close to the organization and by the general public. Often Salvation Farms' specific programs are more easily understood or relatable than the overarching philosophy of resource management. This suggests that, even though Salvation Farms is having a meaningful impact on the community, the organization can expand its evaluation metrics, further define its indicators for success, and connect more with state-wide and regional partners to further clarify its role in Vermont's food system. Improving the systemic linkage with other stakeholders, including the immediate community Salvation Farms operates in, will not only help the organization grow but also help advance the conversation in Vermont regarding how to strengthen the food system.

Introduction

Arrival at Topic of Inquiry

For the practicum phase of my M.A. in Sustainable Development, I have been immersed in the world of Vermont's food system, current trends, gaps in knowledge and resources, and partnerships. I am completing my practicum phase at Salvation Farms, a small nonprofit in Vermont, whose mission is to build increased resilience in Vermont's food system through agricultural surplus management. Salvation Farms helps to capture fruits and vegetables that would otherwise be lost on Vermont farms and get them to local folks.

In writing my capstone paper using Salvation Farms as a case study, my goal is to integrate the core classes at SIT that have shaped the way I understand and assess the work of nonprofits – most notably systems thinking and how to evaluate nonprofit success. So many nonprofits are trying to do good work but don't quite know how to fully conceptualize or measure their impact. Having greater tools to do this would be very useful for my future career, whether in the nonprofit sector or not.

I recognize Salvation Farms' struggle to clarify its mission to the public. Yet I also believe it is a unique organization that is asking the right questions. In this way, I hope through my capstone to learn both tools to understand, measure, and evaluate nonprofits in general and how to conceptualize the evaluation process in writing. I also hope to have a greater understanding of the agricultural nonprofit environment in Vermont and how other individuals view the organization.

Contextual Information

Salvation Farms was established in 2005 and acquired federal 501(c)3 nonprofit status in 2012. The organization has three primary goals: 1) reducing food loss on farms, 2) increasing consumption of locally grown foods, and 3) fostering appreciation for Vermont's agricultural heritage and future.

Through collaborative partnerships, Salvation Farms works to rescue the tons of food that go to waste on Vermont farms each year through three avenues: gleaning food on nearby farms: the reaping of un-marketed but wholesome crops; creating and facilitating the Vermont Gleaning Collective, a network of autonomous, community-based gleaning programs; and by establishing the Vermont Commodity Program, which aggregates unused local fruits and vegetables and quality assesses and packages them for ease of distribution to charitable and institutional sites.

Salvation Farms is located in Morrisville, Vermont and is run by an Executive Director, who oversees the Director of Administration and Development, the Administration and Development Assistant, and two AmeriCorps VISTA Members. A 5-person Board oversees the Executive Director, who founded the organization. Salvation Farms is rapidly growing and has recently hired on an additional staff member to oversee the new Vermont Commodity Program facility in Winooski, Vermont.

Research Question

My aim is to write about how systems thinking (i.e. clarifying end goals with more nuanced awareness of the multidimensionality of the "bigger picture") can help create better performance measurement tools. At SIT, we learned about how evaluation and performance measurement can often be solely based on individual programs and how they can fail to accurately measure the extent to which the organization is accomplishing its mission. I have seen this struggle in my practicum, as the organization strategizes how to properly evaluate its expansive and long-term mission. I see systems thinking as a potential way to help clarify the need and purpose of evaluation, and for the creation of appropriate performance measures.

My practicum organization also subscribes to systems thinking and I believe this paper can help the organization reflect and creatively refine its evaluation processes. This is especially important as the new Winooski site will need a fresh set of performance measures to evaluate impact. In addition, a systems approach can help the organization explain its goals and mission more clearly to others and to itself: for instance, the need to expand its programming, and how that works towards the broader mission and community's needs.

It is important to note that Salvation Farms already utilizes robust evaluation and performance measurements and is thoughtfully expanding these indicators, especially amidst program and staff growth. There is continual discussion regarding how to clarify the work and philosophy to the wider public. In this paper, I do not seek to offer specific evaluation metrics Salvation Farms should be using. Rather, my intention is to provide reflection, assist in understanding how the community views the organization, and how Salvation Farms can clarify its message through strategic performance measures. Thus, my research question is: t*o what extent can systems thinking and approaches help redesign performance measurement at Salvation Farms and ultimately help to clarify its mission to the public?*

Literature Review

Systems Thinking

Why the Need for a Different Type of Thinking?

Since the industrial revolution, Western society has moved from the arguably more spiritual and complex focus on religion and communal societies to a more scientific and individual-centered analysis of the world. This shift has included a move towards "logic and reductionism"[1] that upholds the view that humans can understand and solve problems by simply pairing a problem with a straight-forward, linearly deducible solution. Striving for simplified approaches to understanding or solving complex social, economic and environmental issues neglects the fact that "so many problems that plague us today are complex, involve multiple actors, and are at least partly the result of past actions that were taken to alleviate them."[2] This thinking has led society to believe that "cause and effect will be relatively near" to each other; when faced with a problem, we focus on the supposed solution that is logically "close by."[3] Our minds appreciate thinking about "single causes" neatly producing "single effects."[4] By focusing on this linear world view and ignoring the actual, more entangled complex of systemic relationships that characterize the real world, we are often led into "cycles of blaming and self-defense: the energy is always out there and problems are always caused by someone else."[5]

We have been led to believe that we should focus on actions that produce improvements in a relatively short time span[6] – i.e. feeding someone who is hungry. Of course, this is beneficial and relatively easy to do in the short term, but the question remains if this is truly addressing that person's need for greater food security. Society often neglects that long-term costs that may

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[1] Meadows, D. H. (2008). *Thinking in systems: A primer.* D. Wright (Ed.). White River Junction: VT: Chelsea Green Publishing, 4.

[2] Aronson, D. (1998). Introduction to systems thinking. In *The thinking page.* Retrieved from http://www.thinking.net/Systems_Thinking/Intro_toST/intro_to_st.html.

[3] Ibid.

[4] Meadows, 100.

[5] Smith, M. K. (2001). *Peter Senge and the learning organization.* Retrieved from http://infed.org/mobi/peter-senge-and-the-learning-organization/.

[6] Ibid.

accompany short-term improvements [7] and then finds itself confused when short-term implementations aren't addressing the root cause of such issues.

While multitudes of nonprofits and government agencies are working to address problems such as food insecurity, childhood obesity and homelessness, society does not seem to be any closer to solving these issues, even though these nonprofits are touting incredible success. This begs the question of whether the "success" of these nonprofits actually stems from them successfully solving the problems they seek to tackle: should society be striving for more people to be accessing more food shelves on a more regular basis every year, or should the objective be to drive those employed at the food shelves out of work due to a true lack of demand? In this way, when faced with a seemingly simple but actually complicated problem that continues despite the best efforts to solve it, we tend to "blame limited resources, promote our own successes, downplay failures," and view others in the system competitively instead of working cooperatively for more effective solutions.[8]

How is Systems Thinking Different?

It is in this light that systems thinking has emerged as an antidote to linear or "scientific" thinking. Systems thinking is said to have its foundation in the field of system dynamics, which was founded in 1956 by MIT professor Jay Forrester, who saw a need for a "better way" of testing new ideas about social systems and to offer a more "explicit" understanding of social structure.[9] Historically, general systems theory is regarded as having two distinct origins. The first arose from a need to make the behavioral, biological, and psychosocial sciences "more

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[7] Smith, M. K. (2001).

[8] Stroh, D. P. (2015). *Systems thinking for social change: A practical guide to solving complex problems, avoiding unintended consequences, and achieving lasting results*. White River Junction, VT: Chelsea Green Publishing, 43.

[9] Aronson, D. (1998).

scientific" to increase their value in traditional scientific fields.[10] The second was born from the need for a "more specific systems science" to address "interdisciplinary work."[11] This was an attempt to find "linkages" between the behavioral, biological, and psychosocial sciences, and to illuminate the interplay among them.[12]

Systems thinking broadly defines the world not as a "series of events"[13] but as a web of interconnections, a perspective of understanding world events as "wholes rather than as a collection of parts."[14] This is in great contrast to traditional analysis which focuses on separating out "individual pieces" of what is being studied.[15] Instead, systems thinking focuses on "expanding views to take into account the larger number of interactions" pertinent to the particular issue of interest.[16]

What is Needed to Understand Systems?

Systems thinking thus requires a new sort of world view, different from the scientific and linear-logic foundations of the Enlightenment and Industrial Revolution which methodologically focus on individuality, linear relatedness, and the absence of information challenges. Instead, system thinking seeks to "raise thinking" to a level at which we "create the results we want as individuals and organizations, even in those difficult situations marked by complexity, great number of interactions, and the absence or ineffectiveness of immediately apparent solutions."[17] It stems from understanding that we live and function as mere elements in an ever-widening complex of sub-systems in this world system, all of which are inter-connected in some fashion

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[10] Gray, W., Duhl, F. J., & Rizzo, N. D. (Eds.). (1969). *General systems theory and psychiatry*. Boston, MA: Little, Brown, and Company, xviii.
[11] Gray, W., Duhl, F. J., & Rizzo, N.D., xix.
[12] Ibid.
[13] Meadows, 88.
[14] n/a. (2016). Definitions. In *Systems thinking in school*. Retrieved from http://watersfoundation.org/systems-thinking/definitions/.
[15] Aronson, D. (1998).
[16] Ibid.
[17] Ibid.

for a specific purpose and all of which continuously react to one another in ways that cannot be predetermined. It is a system impossible to know or understand completely. Uncertainty rules and, unfortunately, it is the way human societies, bio-social systems like the ecological and climate sub-systems, and even the national economy are structured and function. Dealing with problems emerging from these sub-systems is therefore notoriously difficult as the solutions proposed or implemented often result from "conventional" worldviews and analytical approaches. Because they tend to be linear and excessively reductionist, they are often incomplete, inadequate, and methodologically inappropriate for obtaining "solutions" beyond the short-term horizon.[18]

Systems thinking requires a new world view, of sorts, in order to understand the true complications of the world.[19] This can be used to address "chronic, complex problems" where diverse stakeholders find it "difficult to align their efforts, despite shared intentions."[20] However, systems thinking should not simply supplant other disciplines or sciences but be viewed as "enriching and enlarging" them.[21] It contributes to other fields in that it can illuminate how interconnections "achieve a desired purpose" or accomplishment.[22]

Defining a System

In order to fully understand systems thinking, one must start with a basic definition of both a system and the larger tool of systems thinking. Both are difficult to capture in one sentence, as a simple definition will do "violence to its richness" while a rigid definition "stifles the growing and developing nature" of the field.[23] However, acclaimed systems thinking innovator Donella Meadows characterizes the term system as "a set of things interconnected in

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[18] Meadows, 4.
[19] Meadows, 87.
[20] Stroh, D. P. (2015), 28.
[21] Gray, W., Duhl, F. J., & Rizzo, N.D., xix.
[22] Stroh, D. P., 16-17.
[23] Gray, W., Duhl, F. J., & Rizzo, N.D., xviii.

such a way that it produces its own pattern of behavior over time."[24] Another writer defines the term as a "set of objects together with the relationships between the objects and between their attributes."[25] Defining a system is more complex but can be understood as a collection of elements that are interconnected for a specific purpose; it is uncertain and influenced by other systems to which it may be linked.

The term "Systems Thinking" can be understood as a set of tools that help "map and explore dynamic complexity" and offer a unique perspective that sheds light on how the parts of a whole "interrelate."[26] It can also offer a set of terms to express that complexity.[27] This way of thinking is often referred to as an "approach," as it can be applied as a deeper form of understanding any other discipline.

In order to put into context how systems thinking can be useful, one needs to understand the structure and principles of how a system operates. Donella Meadows explains that a system consists of "interconnected sets of elements" that exist in their particular configuration for a purpose. The "elements are the distinct constituent part of the system; the interconnections are the relationships that bind the elements to one another, and the function is the reason or purpose of the whole setup."[28] Many of the interconnections dictate a series of events over time, revealing specific system behavior.[29] A system is more than the sum of its parts, can be nestled within other larger systems, is dynamic and unpredictable, with its function or purpose the most crucial "determinant" of its behavior."[30] Not surprisingly, many of the relationships within a system are non-linear, with various "complexities" dictating changing behavior.[31]

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[24] Meadows, 2.
[25] Gray, W., Duhl, F. J., & Rizzo, N.D., xx.
[26] n/a. (2016)
[27] Ibid.
[28] Meadows, 11.
[29] Meadows, 11.
[30] Meadows, 15-17.
[31] Meadows, 94.

How Systems Work

There are a few main components that make up a system, with more complex systems involving multiple variations of these components that interlock and reinforce one another. The basic system involves stocks and flows. A stock is understood as the “memory of the history of changing flows” within a system. One example of this could be a bathtub filled with water – the amount of water in the tub is that system’s stock. If inflow increases -- for example the faucet gets turned on -- the stock (the bathwater) will rise. If the drain is opened, the stock will decrease, lowering the bath water level. The inflow and outflow can each increase or decrease, but if the rates are equal the water level will remain steady; this is referred to as “dynamic equilibrium.”[32] Stocks are the “foundation” of any system, as this can often be “seen, felt, counted, or measured” at any given time.[33] It is important to remember that the inflows and outflows are independent of each other and could thus be out of balance; ultimately the flow represents a change or behavior over time.[34]

It is also vital to remember that a stock usually changes slowly over time and can act as a “delay, lag, buffer, or source of momentum” in a system; even when a flow into or out of them changes suddenly, the time lag allows room to “maneuver, experiment, and revise a policy” that may not be working.[35] In this way, people monitor stocks – the amount of food on a farm, money in a bank account, trees in the rainforest – and take action designed to raise or lower stocks to maintain an “acceptable” range.[36] Those decisions can result in systems thinkers seeing the world as a “collection” of stocks and understanding the various dynamics of regulating those levels.[37] This is often a useful analysis when doing qualitative measurements and is not necessarily

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[32] Meadows, 189.
[33] Meadows, 17.
[34] Meadows, 24.
[35] Meadows, 23.
[36] Meadows, 24.
[37] Ibid.

applicable when studying qualitative efforts, such as the happiness of children or vitality and safety within a community.

This implies that systems thinkers see the world as a collection of feedback processes, or ways of understanding how a stock rises or falls. A feedback loop is shown in systems diagrams as a "closed chain of causal connections from a stock, through a set of decisions or rules that are dependent on the level of the stock" and can, in turn, alter a flow to change a stock.[38] In this way, there a few types of feedback that can alter a stock.

The first kind is a balancing feedback loop, which seeks equilibrium within the system and is a "source of stability and resistance to change."[39] This must appropriately compensate for the inflow or outflow that affects the stock by keeping the stock within a certain range.[40] A balancing feedback loop is formed by some "control mechanism" that affects the flow into or out of the stock.[41] For example, if a person accidentally splashes water out of the bathtub, the control mechanism would be to add more water from the faucet. In this way, the controlling force can either work to keep the stock at a certain level or to increase or decrease the flow by keeping the water on for a while to rise up or by unplugging the drain to release the water. The changes in the stock can operate in two directions.[42]

The second kind is a reinforcing feedback loop that is self-enhancing and leads to "exponential growth" or even explosion or chaos over time.[43] This kind of loop will increase or decrease, depending on the current level of the stock. For example, the amount in a bank account influences the amount of interest that is automatically generated: as the stock (amount of money in the account) increases, the interest will increase in relation. In this way, growth builds on

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[38] Meadows, 189.
[39] Ibid.
[40] Ibid.
[41] Meadows, 25-26.
[42] Ibid.
[43] Meadows, 189.

growth or decline builds upon decline.[44] However, the information delivered via a feedback loop often can't act quickly enough to alter behavior immediately to counter the feedback it just received; it can only affect future behavior.[45] Stocks often have multiple reinforcing and balancing loops, which are often interconnected and related to other systems.[46] For example, the demand for timber will ultimately shape the amount of logging a company will do in a forest, affecting the amount of trees that are cut down, which in turn affects the greater ecosystem.

In this way, systems become complex when there are various strength levels of strengths of feedback loops, which then create larger changes in the behavior of the system.[47] In growing systems, there must always be "at least one reinforcing loop driving the growth and one balancing loop constraining the growth," as no system can grow indefinitely.[48] In this way, a single stock is "likely" to have various reinforcing and balancing loops of "differing strengths" that constantly change the system's dynamics. Additionally, there is often a "delay" in responding to various changes and information.[49]

Properties of Highly Functional Systems

Donella Meadows argues that there are three main properties of highly functional systems: resiliency, self-organization, and hierarchy. First, resiliency is described as elasticity, or the "ability to bounce or spring back into shape or position after being pressed or stretched."[50] This allows for survival and persistence in various environments.[51] This is mostly due to feedback loops that are able to restore the system even after agitation.[52] This is not the same as

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[44] Meadows, 25-26.
[45] Meadows, 189.
[46] Meadows, 25-26.
[47] Ibid.
[48] Meadows, 190.
[49] Meadows, 39.
[50] Meadows, 75.
[51] Ibid.
[52] Ibid.

being static over time but instead having the ability to ebb and flow periodically but to restore back to the typical condition.[53]

The second property is self-organization, or the capacity of the system to "make its own structure more complex."[54] This requires a certain degree of unpredictability and disorder but ultimately creates more complex and dynamic ways of conducting itself.[55]

The third property, hierarchy, is necessary for subsystems to "regulate" themselves while still "serving the larger needs" of the system, which is in charge of coordinating and enhancing the function of each subsystem; the result is a "stable, resilient, and efficient structure."[56] This hierarchy is helpful as it "reduces the amount of information" any part of the system needs to keep track of.[57] The purpose of hierarchy is to help the subsystems function at their best capacity and continually balance the needs and responsibilities of both the subsystems and overarching system.[58] In this way, there must be "enough central control to achieve coordination toward the larger system goal and enough autonomy to keep all subsystems flourishing, functioning, and self-organizing" to be truly sustainable.[59]

How Systems Thinking is Useful for Solving Problems

Systems thinking is a "critical tool" in addressing the myriad of environmental, political, social, and economic challenges facing the world.[60] The character of systems thinking makes it extremely effective in teasing apart the interconnections and interdependence of various factors, and to illuminate where the areas of "ineffective coordination" are among those involved.[61] Systems thinking clarifies the leverage points within the system where even a "small change can

[53] Meadows, 77.
[54] Meadows, 79.
[55] Meadows, 79-80.
[56] Meadows, 82.
[57] Meadows, 83.
[58] Meadows, 84.
[59] Meadows, 85.
[60] Meadows, 89.
[61] Aronson, D.

lead to a large shift in behavior."[62] While these points of power are "not unique" to systems thinking and those deeply involved ultimately know how to locate these leverage points, systems thinking often "clarifies how to adequately use" these leverage points for a certain aim.[63]

Donella Meadows reminds us that no one "deliberately creates" societal problems such as hunger, poverty, disease, and war, yet they persist nonetheless. They will only "yield" if we can understand how to restructure the system to not perpetuate violence.[64] This requires a different way of seeing and thinking, the most powerful of which may be examining the goal of a system in order to know how to influence its behavior.[65] For example, if a charity's mission is to increase the amount of food it distributes to those who are hungry, then the goal of that system is to manage the supply of food, not to alleviate hunger. Ending food insecurity would drive them out of business. Donella Meadows explains that to "confuse effort with result" is one of the most common mistakes in designing systems around the wrong goal.[66] Systems thinking allows leaders to "manage, adapt, and see the wide range of choices" in order to identify the root causes of problems and create new opportunities to engage with those.[67]

Applying systems thinking to strategic planning can additionally help organizations and communities "clearly identify the leverage points and increase the success factors" required to create lasting change by streamlining choices among too many programs and priorities.[68] This can help "distinguish quick fixes from short-term success and identify unintended or intended consequences."[69] Ultimately, the potential of this mindset is to "empower" and "support" the human capacity to create change.[70] One only needs to remember that there are truly no separate

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[62] Meadows, 145.
[63] Ibid.
[64] Meadows, 4.
[65] Meadows, 138.
[66] Meadows, 139.
[67] Meadows, 2.
[68] Stroh, D. P., 193.
[69] Stroh, D. P., 204.
[70] Senge, Peter. (2013). Systems thinking. *ReVISION, 7.* Retrieved from http://ucd.ie/t4cms/Systems%20Thinking%20-%20Senge.pdf.

systems but the "world is a continuum [and] where to draw the boundary around a system depends on the purpose of the discussion" and what questions need to be asked.[71]

Conclusion

While systems thinking is currently a hot topic, many do not fully understand the complexity of the discipline. While so many recognize its underlying principles and, for example, the importance of addressing root causes of social problems, there is still immense resistance to fully embracing systems principles. Donella Meadows explains that this is, in part, because the Western mind has been taught to "analyze, use our rational ability, to trace direct paths from cause to effect, to look at things in small and understandable pieces [and] to solve problems by acting on or controlling the world around us."[72] While there is certainly a need in the world to apply rationality to solve problems piece by piece, there lacks a complementary ability to recognize what we intuitively know – that every person, organization, animal, even our own bodies, have complicated and interlocking mechanisms that cannot be understood by examining only one piece.[73] While many people in power recognize the complex make-up of the world, it is difficult to release the need to feel in control, which systems thinking ultimately requires.

In order to counter this, individuals must recognize two things at a "gut level:" 1) that everything is interconnected and 2) it is impossible to completely understand that interconnectedness.[74] This is related to the notion of bounded rationality, in that people make seemingly "reasonable" decisions based on the information available to them at the time of the decision, but it is impossible to gain perfect information, especially regarding the more "distant" elements of the system.[75] One uplifting aspect is that even though you need to understand that

[71] Meadows, 97.
[72] Meadows, 3.
[73] Ibid.
[74] Senge, P.
[75] Meadows, 106.

you can never figure everything out, neither can anyone else, which creates an "inherent equality."[76] Systems thinking is an incredible tool to understand and relate to the whole, through examining the interrelationships between its parts; this is not only the way to "integrate" the disciple but the "incentive" to do so.[77] The greatest "resistance" to this arises when the goals of subsystems are inconsistent; the most effective way to manage this imbalance is to "find a way to align the various goals of the subsystems, usually by providing an overarching goal that allows all actors to break out of their bounded rationality."[78]

Thus, true integration of systems thinking requires a change in one's mindset in two distinct ways. First, individuals must understand three main aspects of the notion of models. Primarily, that "everything we think we know about the world" is actually a model. Secondly, that our models do, in fact, have a "strong congruence" with the world but, thirdly, they "fall far short" of representing the real world accurately.[79] Even though we, as products of the Enlightenment, want control, equilibrium, and solutions, systems thinking shows us that that cannot truly exist. The second mindset shift requires full understanding of the need to move from linear to connected thinking. This includes a key understanding of both direct and indirect consequences, which ultimately lead to affecting other aspects of the model. In this way, the goal is to realize there is no "inherent end to a system, no such thing as a complete theory."[80] The goal is to be able to understand a problem more comprehensively in order to find more comprehensive and complex responses.

While it is "tempting" to view this approach as only a change in mental thinking, the full scope and potential epistemological influence incorporates emotional, physical, and spiritual

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[76] Senge, P.
[77] Smith, M. K. (2001).
[78] Meadows, 115.
[79] Meadows, 187.
[80] Senge, P.

dimensions to problem-solving. Integrating all of these angles increases our effectiveness in addressing the "complex challenges" that organizations and other social systems face.[81]

This, in turn, relates to the precautionary principle that even without hard data or proof, individuals should move cautiously, as it is difficult to fully interpret and project the full effects of our actions further down the system or into time. Risk is expensive and prevention is often wiser and less taxing than reactive moves. This will not necessarily eliminate negative externalities or consequences further down the system, but will lead to a broader understanding. This helps move towards the goal of long-term sustainability, not simply short-term results.

Evaluation and Performance Measurement

Why the Need for Evaluation of Non-Profits?

As non-profits and non-governmental organizations (NGOs) proliferate in the United States and across the world, there is an emergent widespread discussion on the merits of NGO work and how to evaluate their programming. Since resources are getting scarcer, even as perceived needs are growing, NGOs have been pressured by donors and patrons to produce "quantifiable results of their work" in order to objectively justify the continuing receipt of funders' resources. This coincides with a general "increased scrutiny of organizational practices and effects of their work," leading to a supposed need to have uniform evaluation processes.[82] While there are various agencies that rate non-profits, such as Charity Navigator or the Better Business Bureau, there is still no consensus on how to evaluate their work although there is general agreement about the dire need.[83] This lack of consensus often stems from a fear that the process will be akin to a "controlling, tight corset that may legitimize bureaucracies, limit creativity" and prevent organizations from taking risks.[84]

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[81] Stroh, D. P., 206.
[82] Gneiting, 40.
[83] Ibid.
[84] Rey Garcia, M. (2008). Evaluating the organizational performance and social impact of third

In order to succeed at performance measurement and evaluation, NGOs must first truly understand it to be an asset. These measurements can help organizations "increase their legitimacy, ensure survival by presenting visible results of their work," and secure funding streams.[85] More importantly, it provides the organization benchmarks and a larger process to "adapt to changes and miscalculations" that are common in such "instable and complex environments" such as the non-profit arena.[86] Thus, organizations must first ask for whom and for what purpose they need to engage in accountability mechanisms; this can help assure the process is useful for the internal workings, not simply for funding stream requirements.[87] The goal should be to "improve the degree to which their mission and objectives are achieved," which is quickly becoming a hot topic of the last few decades, along with issues of transparency and accountability.[88]

Evaluation can be understood as a "conscious and systematic effort to measure the results" of a nonprofit, including both its performance and impact on society.[89] This is most useful when compared with the organization's goals and objectives to then "learn from deviations" between measured results and declared goals.[90] Once that is accurately accounted for, "corrective action" can be taken to move toward accomplishing the mission.[91] Evaluation can be understood as a "compass" to help the organization remain consistent with its mission, values, and strategic goals.[92]

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sector organizations: A new functional realm for nonprofit marketing (Working Paper). Retrieved from Eighth International Conference of the International Society for Third Sector Research website: http://www.istr.org/?WP_Barcelona.

[85] Gneiting, 39.
[86] Ibid.
[87] Ibid.
[88] Rey Garcia.
[89] Ibid.
[90] Ibid.
[91] Ibid.
[92] Ibid.

This tool can translate a vision into action and to establish a feedback process to ensure that action maps onto the ultimate vision.[93] Evaluation can be a way to "manage knowledge" within the organization and then share it with the world, creating richer value.[94] While it can be difficult, intimidating, or time-consuming to engage in evaluation, if viewed as an instrument for "internal cohesion" and a learning process, it will be understood not as a "controlling instrument" but one that is vital to accomplishing the overall strategic plan.[95]

Why Financial and Numerical Measures Are Not Enough

Even though many nonprofits have attempted to create distinct measurements, the financial has often been the easiest and most straightforward gauge for how an organization is doing. The emphasis on finances and numbers has historically been pushed by donors. While managers and constituents are "increasingly concerned" about the non-financial performance of organizations, many are unclear on how to measure or even classify these. Often organizations will default to measuring quantitative programmatic numbers – such as volunteers engaged, pounds of food distributed, or people who come through the door. While these numbers have their place, there remains the question of what these numbers actually show, i.e. whether or not these numbers help further the mission of the organization. In this way, financial measures, even "supplemented with a collection of ad hoc nonfinancial measures, are not sufficient to motivate and evaluate" the furthering of the mission.[96] The question remains how NGOs can use accountability and performance measurement to go beyond the financial to measure how "effectively and efficiently they meet the needs of their constituencies."[97]

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93 Ibid.
94 Ibid.
95 Ibid.
96 Kaplan, R. S. (2001). Strategic performance measurement and management in nonprofit organizations. *Nonprofit Management and Leadership, 11(3)*, 353.
97 Ibid.

Multidimensional NGOs: Beyond Marketization

At the root of the need for more compelling performance measurements is the acknowledgment of the "non-linear" nature of social change.[98] NGO work is often seen as "unitary, stable, and objective" but in reality it is a "multifaceted and fluid" process that interacts with a myriad of other societal, economic, political, and cultural factors.[99] These factors that "influence the trajectory" of societal change are difficult to isolate and explain, lying mostly outside the organization's sphere of influence.[100] In this way, accountability and evaluation must also be multidimensional constructs that can be adapted to changing environments. This unique nature makes an "objective" assessment difficult; nonprofit missions are often "hard to quantify, difficult to measure, and contingent on societal values."[101]

NGO performances have historically been measured with criteria that are based off of market and business paradigms. These often "fail to account for complex dynamics associated with human societies and social change."[102] The term marketization refers to the "adaptation of private sector management [and marketing] models and the embrace of [the types of] market values and principles" that inform purely financial measurements.[103] This guise of market principles within the nonprofit sphere, requiring nonprofits to solely "quantify their social benefits" on measurable outcomes to compare with peers, can be unhelpful and dangerous.[104] This often leads to a "simplified" view of the development process and does not represent the complex nature of NGO work.[105]

In this way, nonprofits must find a way to move beyond the marketization of their social worth to instead find evaluation methods that "do justice to the complexities of human

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[98] Gneiting, 33.
[99] Ibid.
[100] Gneiting, 39.
[101] Gneiting, 40.
[102] Gneiting, 34.
[103] Gneiting, 33.
[104] Ibid.
[105] Gneiting, 34.

development and transformation."[106] These measurements often "reduce an NGO to fulfilling the agenda of a resource-endowed" organization or individual instead of representing the "collective interest of society," most especially those poor or marginalized[107] This is not to say that financial or market measurements are inherently bad; they instead have a valuable place in the larger sphere of metrics. The problem only arises when they are the sole criteria and not one of the multifaceted pieces. This suggests that the solution is for NGOs to embrace a market view for certain aspects of their performance evaluation, such as financials, and devise other criteria for the non-financial or numerical aspects of their mission and relationships.[108]

Evaluation Must Represent and Support Mission

Aware that financial measurements do not depict the full story, many NGOs have turned to both qualitative and quantitative measurements of individual programs or short-term initiatives, which do not necessarily reflect if the organization is meeting its mission. For example, organizations find it fairly simple to create myriad measurements to track or evaluate individual programs or pilots. Though cumbersome, tracking volunteer hours logged, pounds of food distributed, or people attending workshops is straightforward. Many only do this type of tracking if required by funders but do not necessarily use it for internal reasons, such as learning and development.[109] Finding measurements to track or evaluate the degree to which they are meeting their overarching goal or mission is much more difficult.

While important, tracking program measurements may only show one angle or one part of whether the organization is advancing its mission. These often measure past performance and may communicate very little about long-term value creation, such as knowledge or skills acquired, policy changes, or structural changes. Often the services truly needed are intangible

[106] Gneiting, 40.
[107] Ibid.
[108] Gneiting, 39.
[109] Gneiting, 37.

and difficult to measure.[110] While most nonprofits have a clear mission, values statement, and strategic process, very few have developed the performance measurement systems to determine whether their work has had a long-term impact.[111] Ultimately, they have no way to distinguish whether the strategic plan is succeeding or failing.[112]

Isolating these project activities and financial indicators is not frivolous; these metrics can be vital to "monitoring" the performance of an NGO. The issue again arises if this is the only metric or if it is conducted for external use only and does not become a part of a vibrant critique of the internal affairs of the organization. Since this social work is, "by nature, non-linear," the effects cannot only be measured with a linear and numerical approach.[113]

If this happens, the nonprofit is at risk of compromising its values to satisfy funders or, worse, will "adjust their development work to satisfy donor demands" and simplify their programs to produce more measurable outcomes and quantitative data.[114] This creates a great risk of nonprofits being pressured to "sacrifice" long-term impacts for easier, shorter-term "presentable" outcomes; this limits the organization to the "provision of services and neglects their critical role as agents of change."[115]

<u>How to Appropriately Measure Impact</u>

Since financial measures alone are not sufficient and programmatic metrics can simplify a mission, many organizations and scholars have attempted to devise evaluation methods that, while offering guidance to immediate programming, also reflect the values and desired long-term impact of the organizations. Not surprisingly, there is no agreed-upon "single approach…or

[110] Kaplan, 355.
[111] Kaplan, 356.
[112] Ibid.
[113] Gneiting, 37.
[114] Ibid.
[115] Gneiting, 38.

generic set of indicators" for assessing success or impact.[116] However, while there is no universal model, scholars have offered various frameworks to inspire such assessment.

One of these frameworks was introduced in Philanthropy Measures Up, published by the Global Leaders for Tomorrow Task Force on Philanthropy for the World Economic Forum of Davos in 2003, in an attempt to categorize approaches to the measurement in philanthropy.[117] This has been deemed one of the most important "interdisciplinary, transatlantic efforts made to gather, examine, and compare measurement practices" in philanthropy and offer three typologies: results, performance, and comparative/benchmarking.[118] While not a perfect model, it is important to remember that since there is no standard, organizations have the capacity to pick and choose or combine elements of each that they feel truly align with their mission.

Typology 1: Results

This approach reflects quantitative summaries of achievements that are often based on cost-benefit analyses; this is based on the logic model of resources -> activities -> outputs -> outcomes -> impact. [119]

The resources or inputs lead to activities, which are noted as the achievements of the program. There are certain outputs from those activities that comprise services or products. The outcomes are the results of that product for participants during and after the activity. What ultimately results is the impact or the fundamental change that happens in the entire community or system as a result of the activity happening.[120] Here, it is vital to distinguish between the output, which is the "initial result and reveals little" about accomplishing the goal, and the

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[116] Gneiting, 37.
[117] Philanthropy News Digest. (2003). *World Economic Forum's Global Leaders for Tomorrow Releases Report on Measuring Philanthropy.* Retrieved from http://philanthropynewsdigest.org/news/world-economic-forum-s-global-leaders-for-tomorrow-releases-report-on-measuring-philanthropy.
[118] Rey Garcia.
[119] Ibid.
[120] Ibid.

outcome, which is the consequence of the output. This is the change in "behavior, attitude, or mentality…that reveals whether the objective" has been accomplished.[121]

One example of this is the notion of SRI, or the social return on investment. This is based on the notion that a nonprofit has "measurable financial return, in terms of a decrease on public or private resources devoted to that same goal."[122] For SRI, desired goals are defined, output versus outcomes are explained, and there is a financial equivalent for programmatic work. This is one example of quantifying social good that is otherwise hard to measure.[123]

Typology 2: Performance

This approach measures the achievement in relation to the mission's "preset goals and objectives" instead of just for "isolated" projects. One example of this is the Balanced Scorecard (BSC) approach, which has been widely used in the last decade. The BSC uses a visual map that can be agreed-upon and displayed within the office. The organization's overall strategy is located at the center of a diagram; this helps to clarify how the organization can sustain its vision within all elements of its management system. Surrounding the center goal are five bubbles with different perspectives that can be analyzed independently to offer a well-rounded strategy to engage with the mission. Each perspective usually has space to indicate the objective, measures, targets, and initiatives of each focus.[124] The authors of the BSC stress that the framework is a tool and can be adapted as needed to include greater or fewer surrounding frameworks. Each indicator and goal can be altered for each organization's need and the process can be inclusive and include multiple stakeholders.[125]

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[121] Ibid.
[122] Ibid.
[123] Ibid.
[124] Kaplan, 355.
[125] Rey Garcia.

The perspectives typically include:[126]

- Social Impact: measures the activities' influence and leverage on the greater community
- Customer: measures if customer needs are being met through the implementation of services, including the quality, cost, type, and timeframe; indicators for this include new customer acquisition, satisfaction, and retention
- Internal Business Process: measures internal organizational performance through indicators such as employee and volunteer retention
- Learning and Growth: measures the organization's ability to grow through employee training and information systems updates; indicators include employee satisfaction and trustee or Board of Directors retention
- Finances: measures the growth and diversification of income and cost control; indicators include budgeted versus actual expenses, cash flow stability, and income from service delivery

The authors credit the BSC as enabling organizations to "bridge the gap between vague mission statements and day-to-day operational actions. It has facilitated a process by which an organization can achieve strategic focus, avoiding the pathology of attempting to be everything to everyone."[127]

While highly used and respected, the complexity of organizational analysis cannot be addressed with only one tool. Some feel that the five measures presented in the BSC framework are too easily judged against one another.[128] In this way, the aspects of the BSC are not inherently wrong but the components should be measured separately without reducing them to

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[126] Ibid.
[127] Kaplan, 369.
[128] Meyer, M. W. (2003). *Rethinking performance measurement: Beyond the balanced scorecard*. NY: Cambridge University Press, 3.

doing one aspect well and another aspect poorly. This tool is best utilized when created in an inclusive and transparent way so that all team members have a stake in improving each area.[129]

Typology 3: Comparative or Benchmarking

This approach employs a more systematic comparison of organizational achievements between competitors. One example of this is Corporate Social Responsibility, in which larger, often for-profit, corporations have pre-determined indexes for ratings among peers. These ratings try to connect operations to societal wellbeing.[130]

"Repertoire of Best Practices"[131]

While the above offerings are valuable ideas for measuring impact, it is evident that there is no ideal evaluation methodology and every tool has its drawbacks. However, there is a clear set of features that can be extracted from these wide offerings. These techniques for evaluation include:[132]

- Participation: Generate trust and mutual learning with all relevant stakeholders who participate in defining the goals and implementation.
- Strategic Alignment: The organization must have a clear mission and set of goals aligned with a specific strategy for its operations.
- Trust: Partners and beneficiaries must be able to promote and be promoted within the context of the larger operation, not just one project.
- Flexibility: Since useful evaluation builds upon results which are difficult or impossible to measure, often surrogate measures are necessary, leaving space for risk and

129 Rey Garcia.
130 Ibid.
131 Ibid.
132 Ibid.

innovation. Evaluation should be seen as a capacity-building instrument, not as a tight organizational corset.

- Communication: Evaluation is not truly useful without internal and external communication about why the evaluation is happening, what each team member's role is, and how they can speak honestly about results.
- Transferability: Indicators must be coherent, clear, and easy to understand. It is helpful to build on past indicators or to design new ones that can be used within other programs or partner organizations.
- Financing: Since evaluation costs money, there must be a budget to cover the cost of evaluation and pin-point what is most important, if budgets limit capacity.
- Focus: Since it is not possible or convenient to measure everything, the focus must be narrowed. The first question that must be addressed is why do we want to evaluate, which kinds of information are we looking for, and which actions will be adopted once we obtain them.
- Proactivity: To be effective, evaluation should become an input in the planning process.
- Continuous improvement: Evaluation is most effective when it is an attitude, a culture of asking for and giving feedback and a perpetual process with its main focus on continuous improvement.

Conclusion

There has been a growing trend to re-invent evaluation or performance measurements in the nonprofit sector. While most groups have mastered tracking their organizational performance through metrics such as dollars raised, membership growth, number of visitors, people served, or overhead costs, there is little understanding of whether these metrics truly measure how close the organization is to achieving its broad mission.[133] Instead, good measurement systems should follow a meaningful combination of "efficiency, effectiveness (is the desired change happening?), impact (is the change making the intended difference?) and organizational strengthening measures."[134] Of course, the difficulty lies in not simply identifying these measurements within each organizational project, but also creating the higher-level acknowledgement that if the specific programs are running well they must be making specific and identifiable contributions to the overall mission.

It is in this way that systems thinking can help frame how to answer that question. For if you are not truly aware of the end goal and all the factors that will lead up to it, you cannot adequately determine if or how you are getting there. No single measure of success and no "generic set of indicators" will work for all organizations.[135] It takes time, effort, transparency, and funding to achieve an evaluation platform that works for a particular organization.

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[133] Sawhill, J. & Williamson, D. (2001). McKinsey Quarterly. Measuring what matters in nonprofits. *McKinsey Quarterly.* Retrieved from http://www.mckinsey.com/industries/social-sector/our-insights/measuring-what-matters-in-nonprofits.

[134] S. A. Tirmizi, personal communication, February 26, 2016.

[135] Sawhill & Williamson.

Research Design

My research is an overarching exploration of how various community members and stakeholders view Salvation Farms' approach to achieving its mission. Research will help understand if the organization is clearly articulating its goals, if the organization is embodying systems thinking (to the extent that participants are familiar with the intricacies of this theory), and if current evaluation metrics are helping to gauge and describe how and if the organization is fulfilling its mission.

I obtained the informed consent of the participants in the three exercises I conducted to gather my primary data – surveys, interviews, and a focus group. I strived to preserve the anonymity of the research subjects to the best of my ability throughout the process. A total of 8 people participated in the primary research, which consisted of two interviews, four surveys, and one focus group with two individuals over the course of two months. They included board members, Salvation Farms team members, representatives from nonprofit partners, and a recipient site of gleaned produce. The survey and interview questions are in Appendix 1.

I strive to be upfront with all limitations and have taken time to examine my research questions, with my advisor's assistance, in order to create the most neutral paper possible. However, there are numerous limitations inherent in the research design, including:

- Limited time and resources to conduct outreach and collect data
- Limited training in research methodology
- Personal bias for how the organization could be run or evaluated more efficiently
- Personal desire to create a valuable piece of research
- Bias in choosing research subjects, acknowledging they have past relationships or interactions with the organization

Findings

Mission & Goals of Salvation Farms

When asked to briefly define the vision or the goal of Salvation Farms in their own words, 4 of the 8 participants stated that the mission involved distributing food that would otherwise go to waste to charitable organizations or directly to people who need it. Only two participants used the phrase “resilience in the food system.” Only one participant spoke about this organization working with “precious resources” and only 2 participants spoke of “making connections” to the community or the organization’s mission to “educate” about agricultural surplus. Two participants spoke of the mission as going through multiple phases or “incarnations” and that they still struggled to define the full extent of the organization. None of the individuals articulated the stated mission of building increased resilience in Vermont’s food system through agricultural surplus management. In this way, the participants offered incomplete understandings of the organization’s work and goals.

When participants were asked if Salvation Farms’ mission was well understood by the public, 5 responded “no” or “not fully” while 3 responded “yes.” Most stated that there was an amount of surface-level understanding on a “very basic level,” while the deeper complexities of the organization were not as clear. One stated that throughout Vermont the organization is “generally well-known but it’s unclear what Salvation Farms actually does.” Another stated that what the organization does is “complex and unique” and the “nuances” are often “not stated in an accessible way.” One mentioned that the “details” often get lost and it is easier to identify the organization as “equaling one of its programs,” versus the entire organizational structure.

When asked to what extent Salvation Farms is fulfilling its mission, on a scale of 1 (not at all) to 5 (very well), 1 responded with a 5, 4 responded with a 4, and 3 responded with a 3. Many of the respondents felt that Salvation Farms had accomplished a lot but had not met its mission fully, partially due to the complexity of its work. One stated that it was “hard to gauge,” as they were not sure what “resiliency” really looked like. Another noted that a big aspect to the success of the organization was regarding the appreciation for Vermont’s agricultural heritage and future. While this may have encompassed more defined programming in the past, the respondent did not see any “program or educational” campaign “beyond interactions with volunteers at the farm.” Another stated that the “formation of the Vermont Gleaning Collective is helping to expand the organization’s reach and impact” to truly achieve the mission.

In this way, many respondents noted that the mission was not an obvious end point but rather an ever-evolving goal. One participant noted that the organization is “moving in the direction” while another stated that Salvation Farms is “very much in progress” and that even though the organization “clearly defines” its mission, how it “actually translates that into action is still an evolving process.” Another explained that since it is such a “large” mission, Salvation Farms may always be “moving towards” it rather than arriving – however, this is “not a bad thing, it’s success!”

When asked what it would look like if Salvation Farms was in fact able to achieve its mission, three themes arose. The first was the notion of being able to fully capture and distribute the surplus fruits and vegetables within the state. One spoke of the idea of a “fully-functioning network of programs throughout Vermont to utilize surplus in a professional way.” Another noted that success would be “well-functioning systems set up at a scale appropriate to each region of the state.” Another respondent stated that success would mean a “significant portion of food grown or raised in Vermont that otherwise would not get to consumers would be captured and distributed in a minimally processed way into the food system to those who otherwise would not have access.” Another noted that Vermont would be able to provide “healthy offerings to those in need while helping farmers as well.”

The second emerging theme was that there would be a fundamental system change for the way Vermont approaches the concept of food loss on farms. One noted that if the mission was achieved, Vermont would be “controlling or responsible” for the surplus left on farms and “inspire others.” This participant stated that this was a view of “institutional” change in which the philosophy and work of Salvation Farms’ programs would be “embodied in all different facets of the state…as a line item” instead of the current “battle” of proving the multi-faceted value of capturing this food. This participant noted that reaching this goal in the future would mean that the state would look back and think “it is crazy that this wasn’t in place” before.

Lastly, participants were hesitant that the organization could truly ever reach this goal. One noted that it is a “moving target” while another stated that s/he “honestly cannot answer as I am still working to understand what this would look like.” One explained that is is “evolving” and that “creating the vision” is an experience that we all share if we are involved in the work. One felt that the mission was a guide to “look ahead” to show where we want to be, instead of an exact end point.

Evaluation & Impact

When asked to what degree it was possible to evaluate the impact of Salvation Farms’ work and programming, respondents overwhelmingly agreed that is was “very possible” or “very do-able,” but a few things needed to happen first. These included “configuring exactly what indicators should be used, such as pounds of food distributed, people or volunteers engaged, producers participating, public perception, and connections to decision-makers.” One participant also stated a strong need to “define the terms of the mission, including the words resiliency, Vermont food system, surplus, and management.” Another expanded on the need to “define outcomes clearly and specifically [by] establishing the baseline data and developing quantifiable measures.” Another respondent wondered if the assumption is that “healthier diets lead to healthier communities, could health care professional or insurance companies” be part of the measurement.

Respondents also indicated that impact should be measured not only by the "tangible numbers, which is what the funders want to see," but also by the impact on "individuals' understanding." This may be measured by "volunteers engaged, interactions" with farms, and how those interactions with the organization's programs "impact [individuals'] relationships with the food system." Individuals noted that this is not always tangible and is "harder to measure" but it is important to measure the "extent that people are involved in the process." One respondent stated that even internally within the organization, the staff has to hold themselves accountable and that's how metrics can help – to not only prove to others but to know within the team that the organization is getting somewhere." Another summed up that evaluation is an "emergent and really challenging process."

When asked their perception of how Salvation Farms evaluates its work and programming, participants noted that the organization is deeply committed to performance measurements and evaluating its work, although there was always room for improvement. One noted that there was a "healthy amount of attention" to this topic while another explained there was "diligent effort." One respondent stated that the "Executive Director has a strong work ethic and insists on providing a high quality program." Another respondent explained that Salvation Farms seems to be committed to evolving its ability to do evaluation – some indicators are being evaluated while others are not yet." Another respondent explained that the organization is "in flux" while another noted that it is "really in transition and [experiencing] some growing pains in terms of how it standardizes data" collection and tracking.

However, one respondent elaborated that "Salvation Farms is unique in that it includes the opinions of others and really considers those perspectives strongly" when deciding on evaluation metrics and data collection, especially when it comes to the Vermont Gleaning Collective. Another respondent referred to the food loss on farms study that was being conducted by an outside consultant at the time of the interview. The respondent noted that the organization is striving to elevate the metrics and baseline used. The respondent explained that the organization has been "really innovative when it comes to one person inventing and creating" but the work with the consultant will help to "professionalize" the work.

Systems Thinking within Salvation Farms

While two respondents had not heard of systems thinking and could not answer with full confidence in their academic knowledge, most participants viewed the concept as a vital tool. Respondents defined systems thinking in a variety of ways:

- "An attempt to comprehend both how actions in one part of a discrete system affect or influence other parts of that system and how actions within a system affect other systems with which it interacts."
- "Thinking about the whole picture when identifying the root causes of issues and solutions that will make an impact."
- "Breaking down and seeing points of intersection."
- "Identifying unseen consequences."
- "The greater will be affected by each of the smaller parts."
- "Recognizing the complexity and how things are interrelated. Looks for drivers that have impact on other parts of the system. Looks at leverage points and places where doing 1 thing can have impact on moving the system in another direction. Systems thinking acknowledges the idea of unintended consequences and figures in changes as a part of any dynamic system. Considers ways in which people move toward change and experience change."
- "Having a clear idea of where you are going is important, even if you can't always predict what the next step will be."

All respondents viewed systems thinking as integral to the success of any project or goal. One stated that it was "useful, perhaps essential, and probably difficult to do with any degree of predictive accuracy." Another noted that one "cannot fully understand different components of what a system is" but "if you need a solution, you're going to find a different answer depending on who you ask." One noted that it is "critical in our complex, interrelated world." One respondent explained that systems thinking helps to explain "what you are assuming in order to have this part of your program affect this change. Salvation Farms makes a lot of leaps and asks others to make those leaps to connect the programs to the mission. I think the process of sussing those out among ourselves and showing others what those are at some point would help us at showing how we achieve our mission." Finally, one respondent summed up this section with the perception that "one can feel discouraged and overwhelmed in the midst of systems thinking or one can draw on a sense of agency and like-minded others to do something important. That's what Salvation Farms is doing."

When asked to what extent Salvation Farms is incorporating systems thinking into its work, on a scale of 1 (not at all) to 5 (very well), 3 gave a 5, 1 gave a 4, 1 gave a 3, 1 gave a 2, and 2 respondents did not feel confident answering. In general, respondents explained that they felt the organization was making a good effort to incorporate this theory into their work and evaluation metrics, but had room for improvement. One noted that the "Executive Director is an exceptional systems thinker and conveys this well to the staff, while the challenge is rippling this way of thinking out to the larger circles of the population." Another respondent stated that it is important to not only "sit down with a member of the team and identify steps [to meet your mission], but really making a point of involving the stakeholders. Salvation Farms does this in some realms but in others could do better." Another respondent noted that it is "tough" because the programs "have so many layers and there is a lot of room to grow." This respondent noted that they "foresee continual transition."

One respondent noted that “Salvation Farms is intervening usefully and effectively in one aspect of the food system,” but questioned in what ways the organization was “considering the implications of that intervention on the larger system.” Another stated that the organization “knows it is not exactly where it wants to be but that this is where it intends to be going.” Another respondent notes that a “simple idea to keep useful vegetables out of the compost pile has grown. Salvation Farms continues to expand their original vision.”

Discussion

Conclusions

There were three general conclusions that can be drawn from this research, as they relate to the question: to what extent can applying systems thinking help redesign performance measurements at Salvation Farms and ultimately help to clarify its mission to the public?

The first conclusion was that even though Salvation Farms is growing in recognition throughout Vermont and beyond, there is still only a partial or superficial understanding of the organization's work, philosophy, and vision. Half of the respondents stated that the goal of the organization was to distribute food that would otherwise not be consumed to those in need. While this is a large outcome of Salvation Farms' programming and certainly an important part of what the organization does, there is a misconception that the work or vision ends there. Only two respondents quoted phrases in the organization's mission of "resiliency in the food system" or managing "resources."

In this way, there is a crucial missing link that the organization's work not only includes helping the charitable system but also works towards a larger vision of food independence that includes the non-charitable system, experiential education, and professional engagement with local farms. It was surprising that none of the respondents stated the mission of the organization verbatim, even though all are very familiar with the organization's philosophy. This either shows that the mission is too easily simplified, those closest to the organization do not know the full extent of the organization's work, or the language in the mission is not simple, relatable or understandable. Thus, if the specific words in the mission are hard to remember, the complexity of the work may also be bypassed.

This incomplete or partial understanding can be further extrapolated to understanding the general public's view of the organization. Respondents noted that much of the public had a surface level understanding or basic sense of what the organization does but that the larger philosophy of greater food system resiliency was not clearly articulated or easily relatable. The research shows that many stakeholders have difficulty in explaining or even understanding the nuances of this work, even with those most intimately involved in the organization, such as Board members or those who have worked closely with the Executive Director for many years.

The research also suggested that one of the main sources of this mismatch of information was that Salvation Farms' programs are often much more easily understandable or relatable than the overarching philosophy; there is a need to bridge the divide between the day-to-day projects and the driving mission behind them. However, many respondents felt a degree of growing pains and evolution occurring in the organization and that this mismatch of values results from the complexity and nuance of the organization; over time, the day-to-day work and overarching principles will become clearer to the public.

The second conclusion resulting from the research was that, although some were not familiar with systems thinking and did not comment on the theory, those who did offer a definition gave very nuanced and valuable descriptions. Respondents noted that systems thinking, like Salvation Farms vision, was a complex yet vital tool to evaluate one's work. All noted that the organization was integrating this thought process to improve efficiency and working strategically with partners.

The third conclusion was that it is very possible and necessary to evaluate the complex work of Salvation Farms, yet there were a few items that needed further clarity for this to succeed. These include:

- clarifying what the indicators for success would look like (qualitative and quantitative)
- defining the words in the mission statement
- establishing baseline data
- utilizing a wider network of partners to help the organization think through this process

- examining how this process is helpful both for those on the outside (funders and community members) but also for those on the inside (the team and board members)

The upshot of the research, then, is that Salvation Farms is doing meaningful and thoughtful work in the community and is already engaging in a thoughtful process to address the concerns listed above. Yet it needs a clearer definition of its mission and programming, expanded performance measurements, and continued strategic communication with stakeholders and the general public. Systems thinking can continue to be a useful tool to help consider what those metrics may be and which partners would be necessary to help establish both a baseline and ongoing assessment.

Practical Applicability

Most obviously, Salvation Farms' team and board may benefit from this analysis, in order to further learn how the organization is perceived and to help document conversations that are already happening on how to clarify programming and vision – both to the public and to those at the heart of the organization. If Salvation Farms feels it has the capacity to take on a strategic planning session, this research could help shape the backbone for what is currently understood about the organization and what changes in evaluation metrics may help to explain nuances of its programming, especially in light of expansion. As Salvation Farms grows in scope and staff members, having a clear vision of communicating its message will be vital.

More generally, this research may also help those partners who will work with Salvation Farms in the future – both to collaborate with implementing programs or an evaluation process. The Vermont Gleaning Collective may also benefit from research raising these questions, as a similar process is occurring internally for this network to further define its relationship, metrics, and perception by the public.

Recommendations for Further Research

The question of exactly what metrics to use for evaluation – both qualitative and quantitative – was at the forefront of this research. All respondents noted that it is possible to evaluation anything, yet it is imperative to know exactly what you need to measure, for what audience, for what reason. It is in this spirit that Salvation Farms will need to continue to work with partners to establish exactly what measurements will be most vital in order to further clarify its mission. Further collaboration with regional partners and a strategic planning session with board members is recommended.

Additionally, further reflection could include drawing a systems map of Salvation Farms to help explain exactly where the organization fits into the larger Vermont food system. While an ambitious undertaking, even a simple version could help to illustrate how this theory can be a helpful tool to understand the larger vision of the organization.

More generally, this research could be expanded by speaking to a much larger set of community members. Respondents from various state agencies, farm to school initiatives, other gleaning or food rescue organizations, in addition to individuals from other areas of the country, would help illuminate the issue and provide broader perspective.

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Appendix 1: Survey and Interview Questions

1. In your own words, briefly describe the vision or goal of Salvation Farms.
2. Is this vision/goal well understood by the public? Please explain your answer.
3. On a scale of 1-5 below, to what extent do you think Salvation Farms is fulfilling its stated mission of "increasing resiliency in Vermont's food system through agricultural surplus management?" Please explain your answer.

   1 (not at all) 2 (a little) 3 (somewhat) 4 (mostly) 5 (very well)
4. If Salvation Farms is able to achieve its mission, what would that look like?
5. To what degree do you think it is possible to evaluate the impact of Salvation Farms' work?
6. What is your perception of how Salvation Farms evaluates its work and programming?
7. In your own words, briefly describe your definition of Systems Thinking and to what extent you think it is useful.
8. On a scale of 1-5 below, to what extent is Salvation Farms incorporating Systems Thinking into its work? Please explain your answer.

   1 (not at all) 2 (a little) 3 (somewhat) 4 (mostly) 5 (very well)