LIBRARY LEADERSHIP & MANAGEMENT

Maybe Best Practices Aren't: How Survivorship Bias Skews Information Gathering and Decision-Making

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Sam, the newly degreed library director for a small county library system, and Gina, a senior staffer with many years' experience but no library degree, looked at survey responses regarding the library's new outreach program. Patrons were expressed disappointment with the program, saying that it really did not relate to them and asked why they hadn't been included in the planning process. Sam was bewildered. He had read that this same program operated successfully in several library systems. He had used the program as a 'best practices' framework; why wasn't it working here? Gina appeared to commiserate, but she knew from the beginning that there would be problems. If Sam had just left his office a few times and talked to community members, he could have seen why the new program might be problematic, but Sam thought he had all the answers, so she kept quiet. "This was successful at a lot of places! Why doesn't it work here?" Sam asked no one in particular.

Survivorship bias. Many managers swear by best practices – procedures considered to be superior because of the results they achieve. Best practices are extolled in the practitioner literature in many fields, inducing readers to believe that if they just copy the practices of successful organizations, they, too, will be successful. Reality, however, is often different. You don't see the internals of the other organizations – their people, their skills and expertise, their budgets and resources, etc. that make them unique. You don't see the struggling organizations that might have useful lessons for you. So why do managers use best practices if they can be so problematic? One reason is that best practices are a short cut to finding information they need for optimal decision-making. Managers take a chance with best practices because they don't want to do the hard work necessary to search for the information that will be advantageous to their specific organization. Frankly, you should quake with fear before blindly instituting 'best practices' in your organization because they weren't meant for you and you don't know how they will turn out with your staff, your patrons, your business environment. This article presents the concept of *survivorship bias,* its relationship to best practices, and suggests environmental scanning as a way to improve decision-making by overcoming the bias.

Survivorship bias focuses on survivors (the successful) rather than non-survivors (the unsuccessful), and negatively affects decision-making and problem-solving. The classic example of survivorship bias comes from WWII when the US military asked mathematician Abraham Wald to improve the odds of bombers returning safely to base. An examination of returning planes showed that there were bullet holes in the wings, center, and around the tail gunner. The original idea was to add more armor to the places where the damage was noted. However, Wald thought differently. Those planes, with holes in those places, made it back. To save more pilots, it would be more useful to look where the returning planes were *not* riddled with holes. The planes that didn't return were damaged in those places and weren't able to make it back. The returning planes, the surviving planes, showed where additional armor was needed the least. The place to strengthen the plane was where the survivors were *not* damaged. The military's mistake was focusing on the survivors rather than the failures.

A bias towards survivorship can make it difficult to separate what looks like genius from blind luck. Are you seeing patterns that indicate real expertise in management and decision-making or is what you see only true in hindsight? For example, looking at today's successful online merchants, one might think that their success was due to a killer strategy. It is easy to forget that the dotcom landscape is littered with ecommerce failures. The failing firms often had access to large amounts of venture capital, expert strategists and managers, and some even had the same ideas as today's successful firms – Chewy.com is not the first ecommerce site to sell pet food and each day Amazon sells items that previous online vendors couldn't give away. We don't remember much about failed startups; we certainly don't learn from them, and we don't consider environmental factors that may have contributed to success for one organization and failure for another. Many changes in the online business environment have occurred over time – banks recognized the possibility for increased revenues from online purchasing (jackpot!) and made it easier and safer for ecommerce consumers to use credit cards online; the increased use of personal computers and the internet meant that people became more comfortable with computers and with doing all types of transactions, including shopping; and widespread and relatively inexpensive broadband allowed ecommerce sites to provide fast-loading pictures of goods, which increased the ease and pleasurable aspects of the online shopping experience (how much shopping would you do on amazon if you used a dialup modem?). If your firm started out before all of these elements were in place, it might well fail, no matter what best practices were used. A firm that came later, or one that managed to hang on until the technology and culture had changed, would have a better chance to survive, even without the best practices. The environment and the organization are inseparable.

Let's consider another example of survivorship bias, one which is often seen in the restaurant industry. Two of my guilty pleasures were watching Chef Gordon Ramsay's show, *Kitchen Nightmares* and Chef Robert Irvine's *Restaurant Impossible.* Ramsay and Irvine went to failing restaurants and attempted to save them by changing the menu, personnel, décor, or management style. Many of the owners admitted to opening their business because they saw successful restaurants and thought, "That restaurant is doing well. I can do the same thing. How hard could it be?" The problem is, even with chef owners who know something about the business, restaurants have notoriously high failure rates and making and selling food turns out to be more difficult than they thought because it also includes dealing with vendors, staff, a variety of government offices, unions, and a number of elements that do not involve standing over a stove. Yet, year after year, people open restaurants, having turned a blind eye to the realities of the industry. They mortgage their homes, raid the kids' college funds, and teeter on the brink of divorce as they try to save that which cannot be saved. Even experienced chef owners such as Rocco DiSpirito (whose very public restaurant failure was the subject of the reality show, *The Restaurant*) try to bring practices from one restaurant to another and fail miserably. People believe that they can do just as well as the successes that they see. They don't realize is that they can also do just as poorly as the failures they don't see.

While a restaurant failure is a public disaster for a relatively few people immediately involved in the business, failures with more wide-ranging and devastating repercussions are often hidden from the public, such as clinical trial failures. Investigators can spend years doing the research preparatory to a trial. Subjects take risks and may suffer pain and discomfort. Few articles are written about the many trials that end prematurely because the drug didn't work as expected or subjects withdrew due to the unpleasant effects of the drug. And because little is written about these failures, little is learned from them – so the same failures are repeated, with the same waste of money and effort, because nobody knows what has already occurred.

Managers focus on survivors when they use surveys to gauge employee morale and job satisfaction. A large part of what they need to learn won't be in the responses because the people who had problems working for the organization are gone and managers didn't take the time to do an exit interview before they left, losing what is probably the last opportunity to get some very important information. Former employees aren't around to provide useful information and the responses from current employees can give a false read on the environment – but management won't know that because they focused on the satisfied current employees – not the ones who left because they couldn't take it anymore.

Environmental Scanning. In his seminal article on environmental scanning, Choo[1] suggests that organizations scan the environment to acquire information for decision-making. Environmental scanning can be done systematically, such as by having staff regularly research on what is happening in the field – what is happening with and important to customers, vendors, government, the community at large, etc. Or, managers can take advantage of irregular opportunities for information such as what they pick up a conference or through casual conversations.

Environmental scanning provides information about the problems facing the organization and is a better method to use to support strategy than the whole cloth usage of best practices. How is the world around you changing? How will it affect what you do and what you don't do as an organization? How will environmental changes affect your staff? What new opportunities does environmental change open for your organization? What 'opportunities' should you run away from? Scanning allows the organization to see many problems before they become too difficult, too expensive, or too time consuming to handle. An organization that scans the environment and makes use of the information it finds can be proactive on its own terms, rather than be reactive and forced into using problem resolutions (best practices) from other organizations.

Putting it together in practice. Managers should remember that best practices worked for others in the past – but what makes you think they will work for you now? The methods and processes that helped others survive in difficult times doesn't mean they will help you survive with bullet holes in *your* fuselage. A better management strategy is to tweak best practices for your specific organization. Use environmental scanning to find the information you need your problems. Don't focus on the success you think you see, while ignoring the failures that weren't as obvious. Don't assume that what you see is an indication of managerial expertise. As one psychologist said regarding survivorship bias, "If you group successes together and look for what makes them similar, the only real answer will be luck."[2] Managers need more than luck to survive and need to do something more than focus on others' success. They have to keep in mind that any results that they view as an outsider could just as well be from luck or environmental change as from managerial expertise. If you want to solve your problems, do your own information work.

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