



Using Analytics to Promote Organizational Agility

The term “agile” has moved beyond the original reference to a software project methodology, into a framework that pervades all business functions. This article focuses on how agile relates to organizational design and structures and how the agile methodology can better prepare organizations for the challenges they face in today’s dynamic business environment. There has been much written lately on this subject, but this article is intended to go beyond stating the need for organizations to get agile; it is proposing a method for using analytics to measure how agile a company is, to use analytics as a lever to pry organizations away from the traditional structures and practices that are preventing them from transforming into agile entities. I’ve dubbed this metric the Agility Quotient (AQ).

The term agility was originally about software implementation methodologies. Rather than the traditional, “waterfall” method of managing projects, where all activities are carefully planned, the agile methodology is more about rapid iteration of prototyping solutions. Software implementers work closely with business users to craft solutions that are the best fit for the business needs. The advent of cloud-based software is perfect for this methodology since the software is configurable rather than customizable, so it can be modified quickly and on the fly. Anybody who’s ever been part of a large scale software implementation project knows that often things don’t go exactly according to plan. Having a structure that is more adaptable to changing requirements and conditions is better suited for success than one that relies on all phases proceeding as planned.

The concept of agility has expanded beyond software development to organizational management. Just as traditional software implementation used a structured approach

where all activities are anticipated and planned for, organizational operations have used a hierarchical method of organizing the jobs of people, anticipating that all activities will occur as expected. The reality is more unpredictable. People inside and outside of organizations don’t react according to plan, and business situations change abruptly and frequently. In a perfect world, proactive planning through rigid hierarchical organizational structures should be sufficient to manage complex operations. In reality, they are woefully inadequate.

What Success Looks Like

In today’s business environment, even the best laid plans fall by the wayside once the chaotic realities of the workplace ensue. Former boxing heavyweight champion Mike Tyson said: “Everyone has a plan until they get punched in the mouth.” That rings true for many of us. Rather than create hierarchies anticipating orderly business functions, we’re better off with structures that are designed to deal with rapidly changing conditions.

When organizations are agile, synergies are created in the workplace, whereby results exceed expectations. Much like a finely tuned sports team or music group, championships are won and great art produced when the participants’ interactions mesh well. This analogy also applies to the workplace. It is human nature to try your best to excel when others depend on you.

How to Get There

There are major inhibitors to transforming to the agile organization. Stanford’s Jeffery Pfeffer writes: “The hierarchical organizational structure is rooted in a worker’s need to bask in reflected glory and be with the winners.”¹ Moving to an agile organization requires commit-

ment from the same people who spent their careers climbing the corporate ladder. The hierarchical management structure has been in use for thousands of years and is ingrained in our mindset. Yet, there is compelling evidence that a change in that mindset is long overdue, since it stifles the synergies that we seek. Changing an embedded culture can be hard. Organizational agility results when authority is pushed down the corporate ladder; when workers are empowered to make decisions and take ownership of their work. Therefore, achieving agility depends on executives giving up the power that they have spent their careers accruing. Therein lies the difficulty in promoting organizational agility: the willingness of executives to empower workers at lower rungs of the corporate ladder. General Stanley McChrystal realized this, as recounted in his book: *Team of Teams*.² He purposely didn't monitor the decisions of teams tasked with a mission. How can we get those with the power in corporations to embrace a methodology that entails giving up their authority? The answer in a word is: analytics. Analytics provides visibility and insight into trends in the workforce that allow us to address issues that were heretofore unknown. Analytics can be used to identify the degree to which our decisions affect organizational agility. Analytics can be used by management as a measure to determine how they are achieving the goal of organizational agility. That is the main theme of this article.

"Agile" is the new buzzword, and everyone's jumping on this bandwagon. However, many HR leaders don't know what is entailed in getting there. I recently heard an HR leader tell her staff that they wanted to be agile, yet it was one of the most hierarchical, siloed, bureaucratic cultures going, with no commitment to change.

Ecosystem of Organizations

An organization is comprised of many sub-groups. In traditional organizations they are often depicted as either a hierarchical tree structure emanating down from the CEO, or a hierarchy of cost centers, divisions and departments if we're considering the financial organizational structure. Either way, the struc-

tures themselves are pretty static, although the people can move around in the organization. In a traditional organization, there are multiple levels of management. Workers at the leaf nodes of the tree structure are often dubbed "individual contributors." This term should be struck from the business lexicon. Hardly anyone is an individual contributor. A more accurate term is "team contributor."

A recent study³ indicated that people are essentially cooperative and "good" unless competing for scarce resources. Take the all-too-common situation of two workers competing for a promotion – the node on the hierarchy above them. One will get it and the other will be disappointed, and may resign. Thus, hierarchical management is creating conflict in the organization where it didn't exist before.

In an agile organization, the structures are much more fluid. Teams are comprised to perform certain tasks or projects. These teams network with other teams that provide support or services. Instead of redundant levels of management, there are coaches and strategists that assist teams with experience and competencies that they may be lacking. These teams can reform from time-to-time based on the needs of the business and the status of the tasks they are performing. Thus, the agile organization can be thought of as an ecosystem of sub-organizational structures that are better equipped to deal with the unpredictable, dynamic nature of business.

Work Reimagined

What if we were to reimagine the way work was organized? What if we increased the rewards to people doing the work and decreased it to the ones in the multiple layers of management, whose expertise is navigating bureaucracies and company politics? What if we pushed ownership and responsibility to the ones "in the trenches" – closest to the day-to-day issues? The result will be a company that is better equipped to deal with today's business needs than the 19th century, hierarchical model we currently employ. But, how do we get there? As we mentioned before, making this transformation requires that senior executives – the very ones who are benefiting most from the status quo – relinquish their author-

ity (and maybe their rewards) to the betterment of the company as a whole. Clearly, there are challenges in achieving this transition. By measuring certain aspects of our business, we can highlight behaviors that are leading to an agile transformation. Analytics can serve as the lever to prompt change from the business leaders.

Introducing the Agility Quotient

We need to measure the attributes that encourage the behaviors that move companies toward a more agile workforce, so I am introducing the metrics by which an organization's agility will be assessed: the AQ. The AQ is an amalgam of metrics that reward behavior and attributes that promote or indicate more agility, and punish those that don't. The actual formula for the AQ is outside the scope of this article, but as a general guideline, team results matter more than individual accomplishments. Companies are rewarded for having multiple relationships across the organization identified by organizational network analysis (ONA). Companies that adhere to strict hierarchical structures, and tend to escalate issues up the hierarchy would be punished. The AQ is based on the following principles:

- Measurement of how we do in groups is more important than how we do as individuals.
- The lower the level in an organization where a decision is made, the better. Escalations are punished.
- Workers are encouraged to contribute to multiple teams. The more connections a worker has, the better.
- Workers are encouraged to experiment and not to be afraid to fail. Multiple iterations of a problem are rewarded.

The AQ could be aggregated at any level, from project teams down to the individual. However, the ways individual contributions are measured are modeled on the sports stat plus/minus, which essentially rates the success of the team when each player is participating in the game. I particularly like this metric because it highlights the team chemistry role in assessing one's contributions to their success, rather than individual statistics.

When the focus is on observing metrics, which indicate a company's agility are transparent, it is an indication to management to alter behavior and culture and the organization to become more agile. Examples of group measurements are as follows:

- On-time, on-budget completion of a project;
- Survey responses of the clients the team serves;
- Operating capital or income of a department or business area;
- Stock price or earnings per worker for a company; and,
- Return on improved performance (ROIP)⁴ measurement.

The AQ will not only promote more agility within a company, but it will add insight into patterns and dynamics happening in the organization. For instance, it can reveal the value contributed by a worker involved in multiple projects.

The CedarCrestone (now Sierra-Cedar) 2014-2015 HR Systems Survey⁵ introduced the concept of the Quantified Organization which, "through their HR practices and technology adoption, support an environment of data-driven decision making." They correlated quantified practices with financial results and found that quantified organizations outperformed non-quantified organizations. It would be interesting to see a study that would indicate if companies with high AQs outperformed those with low AQs.

It can be argued that agile practices are too broad to be reduced to a single metric. However, the same can be argued about IQ, which attempts to measure in one stat something as multi-faceted as human intelligence.

The Agile Operating System (AOS)

Human resource systems also need to adapt to changing needs. Today's human capital management systems (HCMs) are structured around the old paradigm: fixed processes, whose workflow adheres to hierarchical structures, where the expectation is that work will be predictable. They need to be rethought to support the agile organization, as the old mod-

el no longer holds. For instance, HR systems are geared around completing transactions, whose workflow is pre-determined, rather than providing the tools to manage uncertainty. What I foresee is the Agile Operating System (AOS), where automation provides the tools needed to effectively deal with unexpected events. The system would not be centered around the transactions, but more so around decision support and assistance in managing unforeseen situations. The AOS might include the following functions:

- Ability to manage complex and fluidly changing relationships;
- Ability to manage both human and non-human assets;
- Dynamic case management, whereby new cases can be spawned and modified on the fly;
- Embedded advanced analytics, including ONA;
- Embedded artificial intelligence (AI), i.e., chatbots, digital assistants, etc.;
- An integration hub to link together enterprise systems and data sources; and,
- A flexible workflow engine to orchestrate across systems and institutionalize repeatable processes.

How to Get Started in Your Organization

I do not underestimate the degree of change that I'm advocating. It will be a dramatic shift of focus from skills, knowledge, experience and capabilities, which are hallmarks of the traditional mindset, to intent, integrity, trust, honesty, transparency, which are core to the agile methodology. As we've seen, people in powerful positions need to abdicate some of their authority to those closer to the action. Is it all or nothing, or is it possible to do a "phased implementation" of agile HR?

I believe you can begin the journey with a pilot project. But, the AQ itself will not get a company to change its culture and approach to business. You need to have executives who see the big picture and are committed to transformative changes. Without executive sponsorship, you will not succeed.

Define Project Scope

Identify a business problem or project that is large enough to make a recognizable impact, but contained enough to manage independent of mission-critical business functions. For the pilot project, in line with the agile methodology, the project team and project sponsors must be in frequent contact. Not necessarily as formal meetings, but by some information sharing medium. Remember, transparency and iteration are cornerstones of the agile methodology.

Define the AQ formula

Identify metrics that contribute to the AQ. Don't worry, you can certainly change them later. The AQ itself is iteratively refined as you become more mature with the process. Identify things that can be measured. Clearly define project success based on empirical criteria. Begin tracking metrics as soon as you can. Maintain an audit trail of metrics as the definition of AQ changes. Constantly compare the AQ to goals of the project and adjust accordingly.

Restructure Teams

Try to define tasks involved, independent of jobs. Assess skills and assign people with the assumption that they will need to learn new tasks. Get total buy-in from each team. Don't be afraid to experiment – it will be time well-spent, as finding the right teams is key. Teams can interact with, and help each other so chemistry between teams is as important as within them. There will be far fewer levels of management needed in an agile organization. The discipline itself will morph into one of coaching, where the manager is filling in competencies not held by the team participants. Artificial intelligence has already had a profound impact on the workforce. As we automate more tasks, AI will fit into agile structures seamlessly. Therefore, the agile organization is a prerequisite to embedding AI within your company.

The Community's Commitment to AQ

The AQ is not a static formula, but is intended to evolve and adapt based on feedback

About the Author

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and behaviors we want to achieve. Just like an attrition prediction algorithm, which constantly adapts and hones its formula as it gains a better understanding of the attrition which is most detrimental, and the causes of those resignations. Therefore, it is up to the community to define what we want to see in the agile organization, and the metrics which will get us there.

Going Forward

The AQ is meant to be a tool that encourages adoption of agile methodologies and measures progress along that path. There is much that's misunderstood about "agile," and the AQ is meant to help clarify the goals and methods. It is up to the analytics community to expand on this concept and have us progress along the road to becoming dynamic organizations.

Endnotes

- ¹ Jeffrey Pfeffer, "Do Workplace Hierarchies Still Matter," <https://www.gsb.stanford.edu/insights/jeffrey-pfeffer-do-workplace-hierarchies-still-matter> <https://journals.aom.org/doi/abs/10.5465/amp.2013.0040>
- ² General Stanley McChrystal, Tatum Collins, David Silverman, Chris Fussell, *Team of Teams*, Penguin Audio, 2015.
- ³ Rand, Greene and Nowack, Spontaneous Giving and Calculated Greed, https://www.nature.com/articles/nature11467.epdf?referrer_access_token=ng3Jo_aKQghgnNUxlonN9RgN0jAjWel9jnR3ZoTv00ggeQRRloNrQojESFavPz03I6KGgkDJYPfraw-PY5S1bH8sUeGYy8ha0-D-uQHMTww1kfHl2z6eTM2JQoiF4bS10qHcyLdOy3-AuFb2KTB-V7i4JDv7DmAUDRc4k_jaFExiFuPIYHRMj-3ja0sGjjhKb4mMgPg0qgyZeU0dd_LSLNN7aU9vGUgv7m0PRSZrOz0LD0X3JWZwiMxvS3GwMOp_9WfJ0qNujjysCMY5Sye0QkioaStrwTsJlFvPohSoA0%3D&tracking_referrer=www.scientificamerican.com
- ⁴ Boudreau, Jesuthasan, *Transformative HR: How Great Companies Use Evidence-Based Change for Sustainable Advantage*, Jossey-Bass, 2011; and Boudreau, Jesuthasan, "The Future of Work: Can you Answer These Strategic Questions?" in this issue of WSR.
- ⁵ CedarCrestone 2014-2015 HR Systems Survey: https://www.sierra-cedar.com/wp-content/uploads/sites/12/2014/11/Sierra-Cedar_2014-2015_HRSystemsSurveyWhitePaper.pdf